MEDICAL AND SURGICAL REPORTER

No. 1664. PHILADELPHIA, JANUARY 19, 1889. VOL. LX.—No. 3.

CONTENTS:

COMMUNICATIONS.

OSTEOTOMY FOR ANTERIOR CURVATURES OF THE LEG.[1]

BY DE FOREST WILLARD, M.D., PH.D.,
PHILADELPHIA.
LECTURER ON ORTHOPÆDIC SURGERY, UNIVERSITY OF PENNSYLVANIA; SURGEON TO PRESBYTERIAN HOSPITAL; CONSULTING SURGEON TO THE WHITE AND TO THE COLORED CRIPPLES' HOMES.

One of the most frequent deformities produced by rickets is a forward arching of the bones of the leg, which deviation is very often associated with a lateral curve of both tibia and fibula.

Rickets is a constitutional disease, and is so seldom seen in country practice in healthy districts, that physicians frequently overlook the early symptoms, which are manifested by an indisposition of the child to be lifted, by peevishness, and by general symptoms of mal-nutrition. Ordinarily these conditions are attributed to indigestion, and certainly the stomach and intestines are largely at fault in the production of this state of defective digestion, and still more defective assimilation; but simple indigestion does not give the beaded ribs or "rickety rosary," the softened cranial bones, the cranio-tabes, the lengthened dolicho-cephalic skull, the open fontanelles, the softened bones, the enlarged epiphyses, the excessive head sweatings, the flabby muscles, and the enlarged epiphyses—deformities so characteristic of rachitis. Rickets is essentially a disease of early childhood, is rarely congenital or hereditary, and only occasionally develops at or after puberty. It differs entirely from either tuberculosis or scrofulosis.[1] In small cities it is rare; in larger ones, it is found in proportion to the exist-

[1] Read before the American Orthopædic Association, September, 1888.

[1] Ashhurst, International Encyclopædia of Surgery, Vol. I; p. 251.

ing amount of filth, squalor, bad air, scanty food and deficient light. When found in the rich, it can be traced to improper food or hygiene. In this country the colored race is more affected than the white, and the results are also more serious.[1]

While it is a constitutional disease affecting all the tissues of the body, yet its worst manifestations are exhibited in deformities of the bones. These deformities are due to the relative preponderance of the organic over the earthy tissues in the bone, and the failure of the formative cartilage cells to produce true bone cells. This is the stage of softening; and during its progress, if the child is allowed out of bed, the osseous tissues are unable to sustain the superincumbent weight and consequently easily yield to a greater or less degree. Not only do the tibia, fibula and femur become bent, but the pelvis is deformed, and either from creeping or from being lifted, the humerus, or the radius and ulna of the patient, may also be distorted. In severe grades even the clavicles are arched.

Upon the resumption of proper assimilation, however, the deposit of earthy salts begins, and then follows the stage of *sclerosis* or hardening, which permanently fixes the distorted bones in their faulty positions.

Among the most frequent of bone deviations are *anterior tibial curves*. These are not produced by contraction of the gastrocnemius; for the calf-muscles are at first flabby and only become shortened at a later stage. The distortion may extend in a long curve from knee to ankle, or it may be abrupt and angular at any portion of the bone, usually the lower third.

The treatment of these anterior curves is accomplished by

I. Manual Straightening and the Use of Apparatus.

In the second and third years of life, if the bones are still either soft or springy, it is possible to correct the deformity by frequent manual straightening, provided the mother or nurse is willing to give the requisite time and patience to the case. The pressure should be as forcible as the integrity of the bone will permit; this will give the child pain for only a few moments after the force is removed. This pressure should be repeated many times daily. If gentle manual pressure could be constantly applied it would doubtless, as in club-foot, be perfectly curative. Instrumental pressure, made in the proper direction by spring power or by strap connected with steel uprights, may be employed in connection with manipulation, during this stage.

After the bone has hardened, however, I agree with Gibney[1] in saying that I have never seen a case of anterior curve of the tibia of any magnitude reduced by apparatus. Many surgeons spend months in attempting to straighten the bones in these cases, and then condemn the patient to perpetual cripplehood; whereas a slight operation will produce a perfect cure. The conditions are mechanically entirely different from those met with in legs bowed laterally.[2]

II. Forcible Fracture.

A. *By the Hands.*
B. *By the Osteoclast.*

A. *Manual Fracture.* — In children under three years of age, by far the safest and best plan to be adopted, is fracture of the two bones at the proper point, if the surgeon possesses the requisite strength. For additional power the knee may be used, or the child may be placed upon its face and a very small sand-bag, or a wide roller bandage, be used as a fulcrum. Frequently it is timidity rather than lack of strength that prevents success. Up to the point compatible with the life of the soft parts, its great advantage lies in the fact that only a simple fracture is produced and speedy union is the result.[3] The objection to the plan lies in the inability of the surgeon to regulate exactly the point of fracture.

The proper dressing after manual fracture is fixation, as described under osteotomy.

B. *Osteoclasis.*—The osteoclast, while a very efficient instrument in the thigh, yet in the leg has the great disadvantage that pressure must be made upon the sharp edge of the tibia covered only by thin skin. It offers the advantages, however, that in the centre of the bone pressure can be applied to a definite point, and that its resultant is a simple fracture, provided sloughing is avoided. When the apex of projection is near to either epiphysis, however, neither

[1] Transactions American Surgical Association, 1887, p. 261.

[1] Transactions Academy of Medicine, New York, 1886. Vol. XLV.

[2] MEDICAL AND SURGICAL REPORTER, July 25 and August 1, 1885. *Archives of Pediatrics*, 1885, p. 680.

[3] *Dublin Journal Medical Science.* Vol. LXXIX; p. 483.

the Rizzoli pattern nor any of its modifications is easy of adjustment.[1]

III. Osteotomy.

A. *By chisel:* 1. Simple. 2. Cuneiform.
B. *By saw.*

A. *Chisel.* Both simple and wedge osteotomy necessitate the production of a compound fracture; but in the former the operation is almost subcutaneous, and in the latter there is the absence of contusion and other ordinary accompaniments of such an injury. The results may therefore be expected to be very much better, provided strict asepsis is enforced.

The procedure which I have found most effective is as follows:

On the day previous to the operation the leg should be shaved, then washed with soap and water and afterward with ether, after which it is enveloped in towels which have been dipped in sublimate solution (1–2000), and then dried. These will remain *in situ* until the patient is etherized, when the final washing with bichloride (1–1000) is made. Instruments are first to be placed in boiling water, then in carbolic acid solution (1–20). The rubber cloth should be placed on top of the sand-bag, and then covered with a single layer of wet bichloride towels. The region of the operation should be well surrounded with carbolated towels. One of the osteotomes should be both wider and thicker than the other, the latter being used in the deeper portion of the section so as to prevent wedging. I have never been unfortunate enough to break off an instrument in the bone, but this accident has occurred in the practice of experienced surgeons, and a portion of the chisel has been allowed to remain. I should prefer to loosen and remove it by cuts alongside.

The osteotome should taper gradually, not abruptly, and should be driven by light taps of the mallet after the anterior cancellous tissue has been passed, lest a splintering or a long oblique fracture be produced. Several times while rapidly demonstrating this operation to a class, I have in the cadaver made a fracture that extended obliquely for many inches. The posterior one-fourth of the bone should always be fractured manually, lest the instrument injure the artery, which, from displacement, may lie directly behind or alongside the bone. Dandridge[1] was unfortunate enough to lose a patient from pyemia, after an injury of the posterior tibial artery and vein, which both lay directly against the tibia.

1. *Linear Osteotomy.*—In simple osteotomy an Esmarch bandage is not desirable,

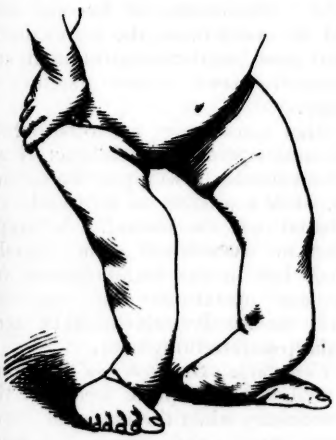


Fig. 1.

Fig. 1 shows only the lower half of the body; but in this case nearly every long bone was curved. Locomotion was impossible except with a waddling gait and with the trunk supported upon the thighs by the hands. When the patient stood, each tibia rested upon the dorsum of the foot. Both legs were "cork-screwed," and the femora bent both outward and forward. All the epiphyses were enlarged, and the elbow articulation was so distorted that the arms could be only partly flexed. Both clavicles were sharply bent forward at their centres.

Fig. 2.

Fig. 2, from a photograph, shows the result of the osteotomies in case shown in Fig. 1.

[1] *New York Medical Journal*, 1886, xliii, p. 129.

[1] *Boston Med. and Surg. Journal*, 1885, cxiii, 25.

as the outflowing blood is of advantage in effectually preventing the entrance of air.

In regard to the cases suitable for the simple cut, experience has taught me that even where the angle has been very prominent, there is no necessity for taking out a wedge, as nature is abundantly able, provided no septic influence is introduced, to unite the bones solidly even if they were angularly placed. The incision with the knife should be directly down through the periosteum, and should be no longer than just sufficient to permit the osteotome to turn crosswise without tension. In children the fibula need not be touched, as it can be easily fractured; but in the sclerosed bones of lads or adults, a separate section will be necessary. The larger osteotome should not be removed from the bone until more than one-third of the diameter has been traversed, although it should frequently be moved sidewise to prevent wedging, and to incise different portions of the structures in large bones. The smaller instrument should be carefully inserted in the exact track of its predecessor.

An operator soon learns to distinguish the increased density of the compact tissue when the posterior region is reached, and will withdraw the osteotome before it has penetrated this layer, when fracture will readily complete the solution of continuity.

Rectification being now performed, section of the tendo Achillis is usually done with benefit, as it relieves much of the tension upon the parts, permits better adjustment and reduces the tendency to future displacement. Irrigation with sublimate solution should be frequently practised during the progress of the section, and upon the withdrawal of the instrument an aseptic sponge should at once close the wound, and remain in position.

Without waiting for hemorrhage to cease, unless it be profuse, all tissue is removed from between the edges of the wound, a few strands of cat-gut introduced, and the lips drawn together by cat-gut suture or strip of adhesive plaster—preferably the former. Irrigation should be continued until the sublimate gauze (freshly wet, in children, with 1–2000 solution) is actually in place.

I have abandoned both protective and iodoform. Dry sublimate cotton is now applied as a roller to the leg and foot and is held in position by an antiseptic or flannel bandage.

Plaster-of-Paris rollers soaked in warm salt water are now applied, the limb is extended, and the deformity slightly overcorrected, until fixation is complete. To insure accuracy of position the plaster encasement of the leg should first be completed; an assistant then rests the heel of the patient upon the thumb and finger of one hand and grasps the toes with the other, which position he must maintain during the envelopment of the foot and the setting of the plaster. As a rule, but little morphia will be required, and if no pain or odor is present, and the temperature is good, the surgeon will have little to do for four or five weeks as the case progresses to good union without suppuration.

The temperature chart is not an infallible guide as to the condition of the parts, yet it is one of the best indications; and if no evidences of suppuration exist, the dressing need not be interfered with, as disturbance of any wound, so long as it is sweet, is harmful. Should the cast become loose, it should be sawed open, the leg examined to see that good position is maintained, and the encasement drawn closer together by a bandage.

If other osteotomies are to be performed at the same operation, each fracture as it is produced should be wrapped in a sublimated towel, while a pledget of antiseptic cotton is fastened over the wound. A temporary wooden or paste-board splint should be applied, lest in the manipulations of the subsequent operations the muscles and possibly the bloodvessels should be lacerated by a sharp-pointed fragment.

2. *Cuneiform Osteotomy.*—The removal of a wedge-shaped piece from the tibia is only necessary when the angle of curvature is very great, and especially when it approaches the right angle. To determine the amount of bone necessary to be excised, one soon learns to judge with sufficient accuracy by his eye. If exactness is desired the sphenometer[1] may be used, or the anterior surface of the limb may be outlined upon a piece of stiff paper. This line paralleled by one at about the supposed antero-posterior diameter of the tibia, will give the size of this bone. When the pattern is cut out as drawn, a rude representation of the tibia will be secured which, when cut through at the point of the curvature, and straightened, will at once show the size of the wedge.

As a cuneiform section is much more serious than simple osteotomy, every aseptic precaution should be used to prevent suppuration. These have already been enumerated. The application of a sterilized

[1] *Therapeutic Gazette*, 1887, p. 154.

Esmarch bandage assists greatly in the proper formation of the wedge, by giving a good view of the cut bone surfaces. A chisel, beveled upon one side, is used instead of an osteotome.

If rigid, and in large children, the fibula should be first divided, but the removal of a wedge from this bone is never necessary. The knife incision over the tibia should be a little larger than the proposed base of the wedge, and the periosteum should be cut not only longitudinally but also laterally, in order that it may be preserved intact without laceration, and that it may be subsequently sutured.

The wedge is not taken away entire, but is made rather by a series of chippings until the proper amount is removed.

The posterior portion of the bone is fractured by manual force as in simple osteotomy. If the instrument is driven too rapidly, or carried too deeply into the bone, a very oblique fracture may result. Tenotomy of the tendo Achillis should always be performed if there is any restraint against rectification.

Many surgeons fasten the ends of the bones with wire,[1] silkworm-gut, kangaroo-tendon, etc.; but I see no necessity in the majority of cases for the delay and for the additional incentive to suppuration. In angular malunion following fracture, however, I always use the inter-osseous suture, as there is ordinarily a tendency to non-union. Upon the removal of the Esmarch bandage the hemorrhage will be very free from the cut surfaces, but hot water or eburnation will usually arrest it. Stuffing the wound with alum gauze is rarely if ever necessary, and if it is used the material should be removed within twenty-four hours. Drainage, while unnecessary in simple osteotomy in which organization of blood-clot will occur, is here of the greatest importance for the prevention of suppuration.

All fragments of bone should be thoroughly removed by irrigation (with 1 to 2000 sublimate solution, in children), and the ends brought closely together *without any pinching of tissues.* A failure to observe this rule will ensure defeat, as will also the retention of any tissue in the lips of the wound when it is closed by cat-gut sutures. Either sterilized horse-hair or cat-gut may be used for drainage; I prefer the former.

When there is an opening at the fibula a roll of horse-hairs is carried into the tibial wound with a pair of forceps, and made to emerge at the opening of the former; another small bundle is carried directly through from the bottom of the wound to the posterior aspect of the leg through a counter opening. Cat-gut may be allowed to remain permanently, although I prefer to take it away, as I do the hair, in thirty-six hours.

In applying the dressings, the same thorough precautions are necessary to obtain asepsis until the moment that the wound is covered with gauze. The sublimate cotton, plaster bandage, etc., are applied as before, except that the latter is put on as a recurrent longitudinally along the sides of the limb at the seat of operation, in order to give additional strength laterally. In front and behind, at the site of the proposed windows, the cast is made thinner and the ends of the horse-hairs arranged so that they can be withdrawn without interference with the remainder of the dressing.

A slight over-correction of the deformity is advisable while the plaster is setting, and extension should also be made in order to secure good apposition of the fragments. When windows are cut in the cast on the second day, the staining of dressings with blood does not necessitate their removal so long as decomposition has not taken place. A moderate wetting with sublimate solution after the withdrawal of the drain will prevent all odor for a week or ten days, when union of the soft parts will have occurred, and a fresh dressing may be applied through the opening. Care should be taken that pressure should be accurately made upon the tissues beneath the window, lest local œdema and pain ensue. Usually these cases go on to speedy and perfect union. Occasionally, through some fault in the operation or in the dressing, suppuration ensues, in which case the cast about the opening should be coated with shellac, the wound thoroughly washed and antiseptically dressed, when the cessation of pus formation may be soon secured.

In the case from which the accompanying figures were prepared, while one limb healed kindly, the other suppurated, and several particles of bone were discharged; nevertheless, a perfect union and a good leg resulted.

I have never ventured beyond six osteotomies at one time, but as high as ten have been performed.[1] It is my custom to

[1] *St. Bartholomew Hospital Reports*, 1886, xxii, 40; also 1884, vol. xx, p. 59.

[1] *Dublin Jour. Med. Science*, vol. LXXIX, p. 292; MacEwen, Trans. Eighth International Medical Congress, Copenhagen, 1884.

rectify coexistent knock-knee by a simultaneous supra-condyloid osteotomy, Figs. 3 and 4; but I have always left the high curve which so often exists in the femur, intending to do section later. Thus far, however, all my cases have been so greatly improved in locomotive powers that I have hesitated to incur the possible risk of rotation of fragments or of placing the head of the femur after reunion in a new relation to the acetabulum; and have also reasoned that as both pelvic and thigh muscles had for years accommodated themselves to the abnormal positions, more or less disability might occur by throwing them into new mechanical relations.

All my sections at the upper end of the femur have been for hip-joint anchylosis, and in cases in which I did not expect to secure the proper apposition of femoral head and acetabulum, since both had been either greatly altered or already destroyed.

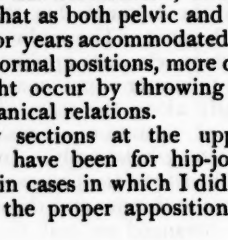


Fig. 3.

Double knock-knee with double anterior curves.

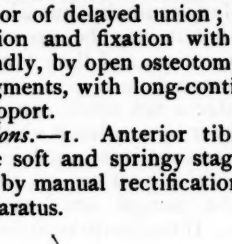


Fig. 4.

After osteotomy.

B.—*Section with the Saw.*—Several very oblique fractures which have recently been produced by me in making sections of the bones by the osteotome and chisel, in which very sharp ends of fragments have rendered injury of the soft parts and blood-vessels imminent, have led me to look favorably upon the operation with the saw. I have never practised it upon the leg bones, although frequently employing the saw on other bones. The section could be performed almost absolutely subcutaneously, and I have never had suppuration follow its use in other cases. The saw should be blunt pointed, should have a short cutting face, and the puncture with the knife should be only just large enough to admit the saw. Care should be exercised that neither blood-vessels nor nerves are injured.

Will the deformity return? Doubtless, if too early locomotion is attempted without support, or if a febrile or other exhaustive disease speedily follows the operation. Such a softening of the callus before it is thoroughly ossified is possible after any fracture; but is rare. Should it accidentally occur, the case should be treated as one of mal-union or of delayed union; *i. e.*, first, by reposition and fixation with gypsum; then, secondly, by open osteotomy and wiring of fragments, with long-continued subsequent support.

Conclusions.—1. Anterior tibial curves during the soft and springy stages may be corrected by manual rectification and the use of apparatus.

2. Braces are useless after hardening has occurred.

3. Manual fracture is the best and safest remedial operation in young children.

4. Instrumental fracture, or osteoclasis, is not as safe or effective as osteotomy.

5. Aseptic simple osteotomy, for all moderate degrees of curve, and cuneiform section for very severe grades, give almost uniformly good and speedy results, without suppuration. Subcutaneous section by the saw is also a reliable operation.

6. Plaster of Paris is the simplest and most effective material for securing accurate position and maintaining absolute fixation. By its use the delay and injury incident to suturing the ends of the bones is avoided.

1818 Chestnut St.

TUBERCULAR MENINGITIS.[1]

BY T. J. HAPPEL, A.M., M.D.,
TRENTON, TENN.
PRESIDENT OF THE TENNESSEE STATE MEDICAL SOCIETY.

Tubercular meningitis is one of the most fatal of diseases. I do not refer in this statement to the total number of deaths from it, but to the fact that there are very few recoveries when the victim is once seized with it.

Definition.—The name itself defines the disease. By tubercular meningitis is meant an inflammation of the meninges, usually at the base of the brain, due to the deposit in these membranes of tuberculous material. The presence of tubercles in the meninges, and inflammation arising therefrom, is the "*sine qua non*" of tubercular meningitis. Post-mortem examination may reveal tubercular deposits throughout the system, as well as in the meninges. In the meninges, we find miliary tubercles—grayish white granules, varying in size from a minute speck to that of a pin-head, which in the aggregate may make a mass as large as a pea. These tubercles are very unevenly distributed, being most commonly found in the pia mater at the base of the brain, though at the same time they are often met with in other locations. The amount of inflammation does not depend upon the number of tubercles.

Etiology.—The causes of the disease may be divided into predisposing and exciting. Among the predisposing causes may be classed any and every thing that tends in any way to impair vitality. Heredity, therefore, becomes a strong predisposing factor. Tuberculosis, scrofula, the so-called scrofulous diathesis, and syphilis are chief among the diseases which when transmitted by either parent to the child may implant in the offspring such a condition of malnutrition as may lead to the production of a state of the body favorable to the development and growth of tubercles. I emphasize the three diseases above named, as I shall have occasion later on in this paper to refer to them again. The eruptive fevers, and whooping-cough in young children, may also be classed as predisposing causes, because in many cases, children, after attacks of those diseases, are left feeble and weak—almost in a condition of marasmus—furnishing pabulum just suited to tubercular deposits and growths.

[1] Read before the Gibson County Medical Society, September, 1888.

Age can be cited as another predisposing cause. We find the disease oftenest in children between two and seven years of age; and next in frequency in young adults, between twenty and thirty years of age. Marriage in close consanguinity, by tending to weaken the offspring of such unions, favors the development of tubercular meningitis. Children of a scrofulous diathesis, however it may have been acquired, and children in whom the nervous system has been developed at the expense of the muscular, are predisposed to the disease. Precocious children, with a pale, flabby skin, soft, relaxed muscles, blue eyes, with a mature general appearance, are prone to the development of the disease. In some cases, however, no predisposing cause can be discovered. One child in a whole family may have the disease, and all the rest, as well as the parents, remain healthy.

Among the exciting causes may be classed, first of all, poor hygienic surroundings. Bad, scanty, and improperly cooked food, close confinement in tenements, and such like influences, as well as sudden changes in temperature, exposure to cold, etc., act as important exciting causes. Hence we find the disease more common among the poor in cities than we do in the country and among the rich; though the latter are by no means exempt. Improper feeding of children, where there is any tendency to tubercle, especially hereditary, is liable to develop tubercular meningitis. Caries may act as an exciting cause; so also may the presence of caseous material anywhere in the system. In many cases, no exciting cause can be discovered. The latest, newest, and therefore the most commonly accepted cause of tubercular meningitis, is a specific cause, the *bacillus tuberculosis*. The disposition of late is to trace all diseases to some micro-organism, animal or vegetable, and we find the disease in question no exception. It is contended that wherever tubercle exists, especially in the lungs, this bacillus can always be found and its presence in the sputum of the patient demonstrated with a powerful microscope, and that it can be differentiated by staining with a strong solution of carbolic fuchsine, which imparts a red color to the bacillus, and then by making "the contrast staining by what is known as Fraenkel's solution, the specific bacillus remaining a deep red, and the other elements in the sputum blue." In my own opinion, this bacillus has not been positively shown to be the cause of the disease, but is more probably a sequence.

Proper pabulum for its development is furnished in systems enfeebled as above described, and the bacillus finds its nidus in this prepared soil and there grows.

The symptoms of the disease may be divided into those pertaining to two periods: the prodromic, and the stage of invasion. The prodromic stage corresponds to and represents the period of the deposit of miliary tubercles, or, as believers in a specific bacillus would say, the time elapsing between the date of the reception of the bacillus into the system, and its multiplication and fixation in sufficient numbers in the pia-mater at the base of the brain to give rise to irritation. This period is of variable duration, from a few days to weeks or perhaps months. During this time changes are noted in the general disposition of the child and in its conduct. The disease rarely appearing before the second year, these changes can be easily noted and studied. As remarked previously, the victims of this disease are usually bright precocious children abounding in life. From being always playful, the child becomes dull and listless, at times apathetic, fretful, peevish, irritable. He cannot be interested long at a time in any way. Whilst playing, he suddenly stops, and wants to be taken up. He becomes a different child in every respect. But the most marked change is in the loss of flesh. The child becomes pale, and his flesh loose, flabby, and progressively diminishes. His features take on an old look. There is a vacant stare about him. His appetite diminishes and he occasionally vomits. He complains at times in a vague way of his head. At night, in his sleep, he is restless, tossing from side to side in his bed, and frequently groaning, and grinding his teeth. According to Pepper, young children often "manifest a strange perversity, or an unusual disobedience, for which they may be punished under the belief that it is intentional." Whilst the foregoing are some of the chief symptoms of the disease in children, they may vary from being so slight as to be overlooked, to being most severe.

The symptoms of the stage of invasion may be subdivided into those of irritation, pressure, and collapse. It is difficult to mark the transition from the prodromic stage to that of irritation. The change is so gradual that it is impossible to say just where one ends, and the other begins. The chief distinguishing feature of this period is the occurrence of fever. The prodromic stage is ordinarily attended by no fever, but in the stage of invasion the temperature rises to 103°, or in some cases higher, though generally lower. The pupils are unequally dilated, and sometimes strabismus is present. Headache increases. There is sensitiveness to light and sound, and sometimes twitching of the muscles. In a few cases violent convulsions occur. The pulse rate in this stage is usually slow, though, exceptionally, it is frequent. The respiration is slow and irregular, and the tongue coated. The bowels are constipated, and the abdominal walls retracted, and vomiting is a prominent symptom. The little patient at times lies in a stupid, comatose condition, from which he arouses with a sharp shrill cry—the hydrocephalic cry. During sleep, delirium is a prominent symptom. There is intolerance of light, the little patient frequently trying to shut out the light by burrowing the head down into the pillows. His somnolence becomes more marked in the latter part of this stage, though he can be roused, and will answer questions rationally, after which he lapses almost at once into a condition of half-sleep. He gradually becomes less and less irritable, allowing examinations to be made without resistance of any kind. The eyes become dull, the cornea takes on a lustreless appearance. Somnolence deepens still more, and it becomes next to impossible to rouse him.

In this stage of the disease symptoms of apparent improvement may occur. The parents flatter themselves that convalescence is about to set in. All symptoms appear better; but these hopes are soon blasted. The duration of the stage of irritation is from a few days to a week. The transition from this to that of effusion with depression, is not marked except by the gradual deepening of all the foregoing symptoms. The pupils are unequal and respond slowly, if at all, to the light. The muscles of the back of the neck become stiff, and occasionally opisthotonos occurs. The bowels are constipated, and the urine is retained or is passed involuntarily. Deglutition becomes difficult; the appetite is completely lost. The respiration is irregular and sighing—the Cheyne-Stokes form being common. The temperature in children is frequently subnormal, even when there are convulsions. The pulse is slow, irregular, and intermittent, the irregularity being a marked feature. The sudden vomiting ceases. The child at times interrupts this condition

of stupor by convulsions, and by giving utterance to the peculiar, sharp, hydrocephalic cry. According to Prof. Loomis, "the ophthalmoscope reveals varicosities of the retinal veins, points of hemorrhage . . . and white, miliary granulations on the retina and choroid." As in the first stage, so in this, there are cases of apparent improvement or even recovery, but in a few hours the child rapidly lapses into a more stupid condition than before. In the stage of collapse, all the symptoms point to a speedy dissolution. The whole system may become relaxed. The paralyses, which up to this point may have been transient, now become permanent. The child is bathed in a cold, sticky perspiration. The pulse becomes very frequent and feeble, varying from 120 to 200 a minute, the heart being released from the inhibitory influence of the *par vagum*. The respiration sympathizes, and becomes frequent, but sighing and very irregular. The pupils are widely dilated. The eyes are rolled upward, showing but little of the cornea, and are insensible to light. The abdomen becomes tympanitic. Involuntary discharges from the bladder and rectum take place. Subsultus is marked. Coma deepens, and death may take place quietly and gradually during this condition, or it may occur from asphyxia in the midst of a convulsion. This stage usually lasts from twenty-four to forty-eight hours, though very rarely the child may linger for an indefinite time in this state of living death.

I have not referred to the condition of the fontanelles in this disease, as it rarely occurs before they have closed; but in the stage of invasion in very young children they are prominent from distention of the brain with the hydrocephalic fluid, whilst in the state of collapse they are depressed.

There are some distinctive features of this disease which should be carefully studied, in order to diagnosticate it promptly when it is met with. The premonitory stage presents usually a frequent pulse, with possibly some little irregularity; the respiration is normal and the temperature almost normal. There is loss of flesh, and vomiting. In the irritative stage of invasion, the pulse and respiration become slow and irregular, the latter frequently sighing. The temperature begins to rise, rising and falling irregularly, though rarely going above 103°. It varies many times each day, but the evening temperature averages a little higher than the morning. Loss of flesh continues, so also does the vomiting. In this stage of the disease, in the majority of cases, the *tache cérébrale* is found—the red mark responding promptly to pressure of the finger on the face; but general flushes alternating with pallor are met with in nearly all cases.

In the stage of collapse, the pulse and respiration become rapid and more irregular. The Cheyne-Stokes respiration marks the last stage of the disease. The temperature may sometimes rise till just before death, and then it falls rapidly. The peculiarities of circulation and respiration are very easily understood and explained by remembering the fact that both are controlled by the *par vagum*, and that in the prodromic period the disturbance of the roots of the nerve and the medulla oblongata is irregular, producing a frequent, varying pulse and respiration; but in the first and second stages of invasion, the irritation is continuous and the inhibitory function of the nerve is kept in play, so that both acts are restrained, whilst in the stage of collapse, in the resulting paralysis, the nerve loses all controlling power and both respiration and pulsation are quickened and made irregular. In an analysis of fifty-six consecutive cases, reported by Dr. Wortmann (*Jahrbuch für Kinderheilkunde*, 1884) "retraction of the head was present in all but one case, and commenced when the pulse became irregular." The temperature never rose above 104°. Hyperæsthesia was present in all but one case where the spinal meninges were involved. Vomiting was one of the most characteristic symptoms, and was considered a diagnostic one when it occurred from a comparatively empty stomach and without effort. When food was present, it seemed to be almost a regurgitation of the ingesta.

The duration of the disease, after the prodromic period, ranges on an average from two to two and a half weeks; but in some few cases the disease has terminated abruptly in a few days. Many circumstances may aid in bringing about a rapidly fatal result. Those cases in which heredity can be traced are more apt to run a rapid course.

Tubercular meningitis is to be distinguished from typhoid fever, which also has a prodromic period, by the fact that epistaxis is very rare in tubercular meningitis; that in typhoid fever the temperature is more regular, and the pulse grows progressively more rapid, whilst in tubercular meningitis it is first rapid, then slow, then rapid again. Again in typhoid fever the abdomen is, early in the disease, tympanitic and tender, with a tendency to too

frequent evacuations from the bowels, whilst in the disease we are considering, up to the stage of collapse, the abdomen is retracted, while there is no tympanites and no tenderness, and constipation is a marked symptom. Vomiting is a prominent symptom in tubercular meningitis, whilst in typhoid fever it is not marked, or it is absent. The acute pain in the head differs in this disease from the dull, heavy headache in typhoid fever. Finally, tubercular meningitis most often occurs in children under six years of age, whilst typhoid fever rarely does. In adults, it would be necessary to keep in mind the whole history of the attack to make a certain diagnosis.

From remittent fever of children, the diagnosis is made by the fact that in the latter disease there are usually no prodromic symptoms, the invasion being abrupt. Whilst there may be vomiting, it is not a marked symptom of the disease. The coated tongue, aching head and back, the enlarged spleen and liver, with the regular rise and fall of temperature, are symptoms distinctive of remittent fever. Especially does the temperature aid much in making the diagnosis. In tubercular meningitis the temperature rarely exceeds 103°; whilst in remittent fever, it frequently reaches 105°, falling during the day to about 100°, these variations taking place regularly, and not as they do in tubercular meningitis. The pulse in remittent fever is quick and full throughout, and frequent in direct proportion to the temperature; whilst in tubercular meningitis it is, up to the period of collapse, slow, feeble, and irregular, frequently intermitting.

From cerebro-spinal meningitis the diagnosis can be made by remembering that in this disease there are no prodromic symptoms. The invasion is sudden and without warning. All of the symptoms are more grave at the very onset. The temperature at first is higher and the pulse more frequent. Cerebro-spinal meningitis in fatal cases does its work quickly. Headache, pyrexia, convulsions in children, and active delirium, are present early in the disease. Unconsciousness ensues in a few days, and the duration of the disease does not usually exceed a week. There are a number of other diseases from which it might be necessary to distinguish tubercular meningitis; but, while none of the symptoms of tubercular meningitis are pathognomonic, yet when grouped together they afford ready means of making a diagnosis.

The prognosis is fatal. There have been a few so-called cases of tubercular meningitis cured; but when careful investigation is made of the history of these cases, the conclusion reached is that they were not cases of tubercular meningitis. Dr. de Gassicourt concludes that most of the alleged cures are "examples of meningitis of a limited extent arising from tubercular tumors, syphilitic gummata, cerebral scleroses, and neoplasms of various kinds." Loomis says: "Tubercular meningitis is one of the most fatal diseases of childhood." Many authors state that it is always fatal after its characteristic symptoms are developed. Watson claims that there is some chance of saving life, if "the complaint, or tendency to the complaint, is detected early." He cites authorities to prove the cure of some cases. He refers to 76 cases, with 19 recoveries. He closes by saying: "I must confess my own suspicion, that they were, most of them at least, cases of what I have called simple encephalitis." Bartholow says: "Although a very few cases have been reported cured, it is held to be an incurable disease, and the termination fatal."

To the same purport, I might quote Flint, Wood, and others. The German writers are the only ones who claim cures. All my own cases have proved fatal.

The only rational treatment is prophylactic. The surest prophylaxis that could possibly be adopted would be to prevent the begetting of children of a scrofulous or tubercular diathesis. It is wrong, and ought to be made a punishable offense in some way, for persons known to be scrofulous or tuberculous to marry, *especially* to *intermarry*. The offspring of such unions, in far the majority of cases, will be diseased. The "survival of the fittest" in such cases should be substituted for the preservation of the fittest. Syphilis in many cases bears the same relation to tubercular meningitis that scrofula does, and needs to some extent similar legislation. Persons having contracted syphilis should not be allowed to marry before the expiration of not less than three years from the date of the development of the disease, and then only when there exists no trace of the disease. I do not pretend to argue the question of the transmission of the tubercular diathesis as a result of such unions; this fact is admitted by all of the best authorities of the present day. In my opinion, close consanguineous marriages should be forbidden by law. No raiser of fine stock will breed "in and in." The strains of blood must

be crossed. He recognizes the fact that the "in and in" breeding produces, as a rule, feeble, delicate, deformed, short-lived offspring; hence such breeding is not done on the best stock farms. If the rule holds good in reference to horses and cows, much more should it hold good in reference to the human family, animals of finer mechanism and more to be guarded. I find on page 339 of "Medical Statistics of the Provost-Marshal General's Bureau," the following statement in reference to a family near Altoona, Pa.: There were "two families of Scotch-Irish birth located there, who were intelligent, healthy, thoroughgoing people, possessing strong vitality and great endurance. Their children commenced marrying and intermarrying, until now, in the fourth and fifth generations, there is not really a sound adult known in all their extensive connection, proving as far as it goes, the evils of the intermarriage of relatives." In Pepper's System we read as follows: "Consanguineous marriages have been time out of mind held to be very objectionable. . . . My own conclusion is . . . reproduction is most normal, and gives best results when a considerable genetic difference (within the limits of species) exists between parents. . . . Moreover, so few families possess an absolutely faultless health-record, that the chances of increasing existing morbid traits by intermarriages are quite sufficient to justify the commonly held objection against them." It is an admitted fact that everything that tends to deteriorate the vital powers, to that extent aids in producing a tuberculous diathesis, and that when this diathesis exists, then we may have in the children tubercular meningitis. I could cite many authorities to show the injurious effect of consanguinity in the marriage relation. My own observation teaches the same. If I were asked to say where the line should be drawn, I would answer that there should be no intermarrying where the blood relationship was closer than that existing between those in common parlance called "third cousins." Confirmed drunkards should not be allowed to marry, because in many cases the children resulting from such unions are epileptics, or have other cerebral or nervous disorders, besides a general feebleness of constitution.

In the next place, where we have these children inheriting a tuberculous diathesis, what can be done to prevent tubercular meningitis? They should be kept much in the open air, where they can bask in the sun's rays; should be supplied with plenty of nutritious, wholesome, well-cooked food; and should be well clothed so as to be protected against sudden changes of temperature. Sedentary amusements should be prohibited as much as possible. School hours for such children should be short. School-rooms, where they attend school, should be well ventilated and the temperature kept uniform, and light should be abundant. They should sleep in well-aired bed-chambers, so that there could be no possible doubt of an abundant supply of pure air at night. They should be bathed daily in cold or tepid water, according to the age of the child or the season of the year. The bowels should be kept regular and open. Cod-liver oil should be administered freely—the more the better—up to the point of toleration. Iron, either in the form of the syrup of the iodide, of the potassio-tartrate, should be prescribed. Visits to the seashore, or some general change of air, should be made once a year at least. Whenever it can possibly be done, all of the children born of such unions as would be expected to produce feeble, delicate offspring, should be cared for as just pointed out.

When tubercular meningitis has once fully begun, since nothing can be done to arrest its progress, all the symptoms should be met as they arise. In the early stage of the disease, the nervous restlessness and irritability must be met with sodium or potassium bromide in full doses. Sometimes it will be necessary to add chloral to induce sleep. If the pain in the head is great, the ice-cap may be applied to relieve it; should that fail, opium in some form will be needed. The bowels should be kept open, but active purgation should be avoided. Liquid diet should be freely given. In the stage of effusion, iodide of potassium will be necessary; shaving the head and anointing it with an ointment of the biniodide of mercury may be resorted to. The iodide of potassium should be given in dose of two grains every four hours to a child three years old, and the ointment should be rubbed on, morning and night. After any treatment patients with tubercular meningitis die—at least that has been my experience with the few cases which have come under my experience. We should, however, prescribe suitable remedies, because it may be possible that simple meningitis (cerebro-spinal) may have been mistaken for tubercular.

In conclusion, I would impress upon you the thought that an early diagnosis should be made, and that the parents of the child should be candidly informed of the hopelessness of the case.

A CASE OF ENCEPHALOCELE.

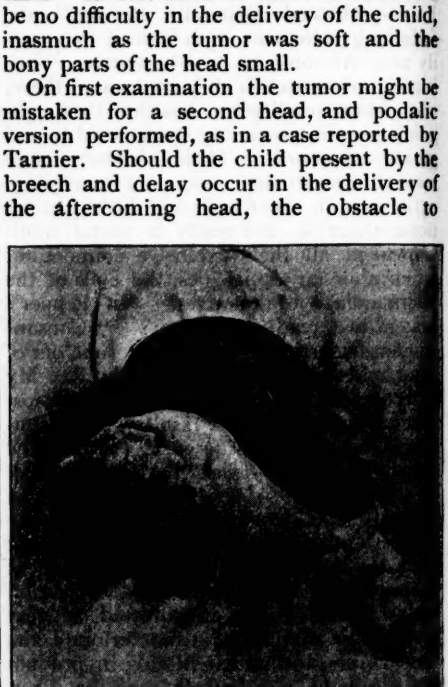
BY D. A. HENGST, M.D.,
PITTSBURGH, PA.

On September 24, 1888, I was called to attend Mrs. James G., 22 years old, in her second confinement. On my arrival at the house I found that the child had been born for several minutes, and that the labor presented nothing unusual and had lasted only about one hour. On examination it was found that the child had what, upon a superficial examination, seemed to be a large hernial tumor protruding from the posterior part of the cranium; this tumor was larger than the head of the child, and was covered with hair around its circumference for about one-third of its extent, the covering consisting of a continuation or stretching of the scalp. It was of a soft, doughy feeling, and slightly discolored in several places. The head of the child was almost flat from the eyebrows backward, and consequently appeared much smaller than the ordinary fœtal head at full time.

The child, which was a male, had no other malformations, was of the ordinary size and well developed in all its parts. The presentation had evidently been by the vertex position, as the woman who was present stated that the tumor appeared first at the vulva; the mass being soft and the head otherwise small made the delivery quite easy. The child lived three days, death being apparently due to starvation. It had made no effort to nurse at the breast and it would not swallow when artificial feeding was attempted; it could open its eyes and cried lustily several times.

On *post-mortem* examination made twelve hours after death, the tumor was found to make its exit from what seemed to be the posterior fontanelle, which was greatly enlarged; the anterior fontanelle was absent and the sutures united by cartilage, so that the entire cranium seemed to be one. About three-fourths of the cerebrum was found within the tumor, and it was highly injected; the part of the cerebrum remaining within the cranium was normal in its appearance. The membranes of the brain were normal in appearance and covered the entire mass. The cerebellum was entirely absent, the growth having apparently originated from and underneath the tentorium cerebelli. The cerebral ventricles were found within the tumor and in a normal condition; the sac also contained about four ounces of serum, no communication existing between the ventricles and the serous fluid, as is commonly found in these cases. In this kind of labor there should be no difficulty in the delivery of the child, inasmuch as the tumor was soft and the bony parts of the head small.

On first examination the tumor might be mistaken for a second head, and podalic version performed, as in a case reported by Tarnier. Should the child present by the breech and delay occur in the delivery of the aftercoming head, the obstacle to



delivery might be overcome by puncturing the head. These cases are exceedingly rare and very interesting; in an obstetric practice of nearly one thousand cases this was my first of the kind.

The accompanying wood-cut, made from a photograph taken thirty-six hours after the birth of the child, will serve to illustrate the size and appearance of the deformity.

3600 Fifth Ave.

—The *Popular Science News*, Jan., says that the body of a boy drowned at Winchendon, Mass., recently, was found through the use of the electric light, a bulb being fastened to a pole and submerged, illuminating the water for a considerable distance in the neighborhood. The electric light promises to become an important aid in all manner of submarine operations.

SUB-SPINOUS LUXATION OF THE HUMERUS; REPORT OF A CASE.

BY B. BRABSON CATES, M.D. (UNIV. PA.),
MARYVILLE, TENNESSEE.

Whilst sub-glenoid, sub-coracoid and sub-clavicular luxation of the head of the humerus are met with in the practice of almost every physician, systematic writers such as Agnew, Ashhurst, Gross, Erichsen and others are agreed that the backward or sub-spinous dislocation of the head of the humerus is a very rare occurrence; there being, according to Ashhurst, only twenty or thirty cases recorded in the literature of surgery.

Without following compiled statistics, showing the relative frequency with which various parts are dislocated, I trust the report of the following case will merit the attention of the profession.

Mrs. A. White, married, 58 years old, was out driving with her little granddaughter on July 18, 1888, when her horse became frightened and ran away with her. The buggy was dashed against a tree and overturned. In the effort to save her little grandchild from injury, Mrs. A. was thrown forward, striking on her right elbow and on her right shoulder. She was also struck on her head and was rendered unconscious for some time. When first seen by my friend Dr. B. A. Morton she had somewhat recovered from shock, and was able to answer questions. Dr. Morton made her as comfortable as the surroundings would permit and had her taken to her home, where I saw the patient in consultation with him.

When I first saw her she was suffering great pain. On examination I found an ugly gash over the olecranon process of the right elbow, and the shoulder of the right side was very much swollen and contused, and very tender on pressure. She complained bitterly of any attempts to move the arm. I noticed a round tumor beneath the spinous process of the right scapula, which on palpation was firm and unyielding. By pressing my hand firmly into the axilla of the same side and rotating the arm I could not elicit any movements from the head of the humerus, but, on the other hand, I could see the round tumor move beneath the spinous process of the scapula. No other injuries, beyond those of the head, shoulder and elbow, were received.

Dr. Morton and I agreed that our patient had sustained a sub-spinous dislocation of the right humerus, which we set to work to reduce. We reduced the dislocation by extension, and counter-extension, and pressure from behind. I then bound the arm in the Velpeau position, and ordered evaporating lotions to be applied to the injured parts to allay the inflammation and to reduce the swelling; and also ordered morphine to relieve the pain.

A NEW METHOD OF DIAGNOSIS IN OBSCURE CASES OF ENTERO-VESICAL FISTULA—SENN'S HYDROGEN GAS TEST.

BY CHARLES P. NOBLE, M.D.,
SENIOR ASSISTANT PHYSICIAN TO THE PHILADELPHIA LYING-IN CHARITY.

I was recently asked by Dr. Charles Meigs Wilson, physician in charge of the Philadelphia Lying-in Charity, to see a patient of the institution, supposed to be suffering from fistula. It is not my purpose to report the case in full. Briefly, the woman had what was called an ischio-rectal abscess about five years before she entered the hospital. Some time after this abscess discharged she states that she began to pass, at irregular intervals, wind and small pieces of fecal matter *per urethram*. No symptoms of bladder irritation exist. An extensive cicatrix, following ulceration produced by a pessary, is present in the vagina. It extends along both sides of the vagina and across the posterior fornix (behind the cervix). In view of the absence of bladder irritation, and of the well-known ignorance of anatomy exhibited by the laity, it was thought likely that if the fistula did exist it was a recto-vaginal fistula. A careful examination under anæsthesia by touch and sight made by Drs. Wilson, Hawley, myself and others, failed to demonstrate the existence of any fistula communicating with the vagina. But two conclusions could be drawn; either the patient was right, or else she was a malingerer. The last seemed probable from what was known of her. It was suggested that a careful and extended study of the urine made with the microscope might determine the diagnosis—particles of vegetable fibre, or the seed of small fruits might be found. This plan involved much labor and time.

It occurred to me that the hydrogen gas test would settle the matter quickly and positively, and I suggested that it be employed. The recommendation was accepted and the following day Dr. Wilson forced the gas into the rectum and lighted the gas at the end of a catheter introduced into the

bladder. I could not be present at the time, but Dr. Wilson told me that no gurgling sound was heard (caused by gas passing the ileo-cæcal valve), hence it seems plain that communication exists between the bladder and large intestine.

I offer this as a new and valuable method of diagnosis in obscure cases of entero-vesical fistula; or, if you choose, a new application of Senn's hydrogen gas test.

SOCIETY REPORTS.

MASSACHUSETTS MEDICAL SOCIETY, SUFFOLK DISTRICT, SECTION FOR SURGERY.

Stated Meeting, January 2, 1888.

The President, EDWARD H. BRADFORD, M.D., in the chair.

The Treatment of Cleft-Palate.

G. F. Grant, D.D.S., and H. A. Baker, D.D.S., presented the subject of the treatment of cleft-palate, and spoke of the use of artificial appliances in the treatment of the deformity, and exhibited apparatus and patients wearing it. The value of surgical interference was discussed by Charles B. Porter, M.D., and J. Collins Warren, M.D.

DR. G. F. GRANT referred to an experience of 21 years in the treatment of fissures of the palate by means of mechanical appliances, commencing just after the appearance of a paper in 1867 by William Suersen, of Berlin. For several reasons the results of surgical interference have been unsatisfactory: (1) because there is no union of the divided hard palate even under the most favorable conditions; (2) because there is not so much improvement in speech as was expected; and (3) because there is an increased difficulty in the adjustment of mechanical appliances afterward.

In 1873 and 1874 the surgeons of Boston—Bigelow, Warren, Hodges and Cabot—were giving attention to this subject, which they discarded later. It was about this time that Dr. Grant had his first success with a mechanical appliance After the introduction of the plate, there was at once a noticeable improvement in the speech. At first the improvement was slight, but it gradually improved for a year, when the difference was very marked. Since that time, or during the last ten years, the patient has been a teacher in one of the public schools of a large town in Massachusetts. Since 1871 Dr. Grant has treated 115 cases of congenital fissure of the palate, and the results have been such as to warrant the conclusion that there is no reasonable doubt as to the success of the appliance. The mechanism of the appliance has been urged by some as an objection, but the argument has little if any more weight than in the case of spectacles for the eyes. The cases in which adjustment is most difficult are those in which only a portion of the soft palate is absent; here the difficulty is to obtain contact of the appliance with the edge of the remaining portion of the palate. In fissures of the hard palate, on the contrary, an arched plate easily fills up the deficiency.

According to the experience of Dr. Grant, the appliance can be adjusted with success as early as the seventh year of age. It is of great importance that the hare lip, which generally accompanies the cleft palate, should be operated upon in such a way as to secure the greatest amount of mobility, because a short and inflexible lip will interfere with the articulation.

Dr. Grant exhibited a patient for whom he had adjusted an appliance several years before. The patient read from a book handed him by the Secretary of the Society, both with his appliance in position and with it removed. This test, as well as his answers to questions from members of the Society, both with and without the appliance, showed how very decidedly his speech had been improved by the appliance.

DR. H. A. BAKER said that in 1841 Dr. Stearns, a physician, made for himself the first mechanical appliance, which was adjusted and worn successfully in a case of cleft-palate. This apparatus was very complicated, having three wings, and many hinges and springs. Stearns, however, selected soft vulcanized rubber, which is not a permanent material, as it retains its value for only two and one-third or three months to a year.

In 1860, Dr. Norman W. Kingsley simplified Stearns's apparatus. He used only two wings, and he employed metal instead of wooden moulds in its construction, and thus he secured a smoother result with a better finish.

In 1867 William Suersen, of Berlin, introduced permanent materials for the construction of the appliance, thus securing a great advantage. He used hard rubber.

In 1881 Dr. Baker made his first successful appliance, and since then he has had about a hundred cases. The first apparatus was made of hard rubber and it had hinges

to aid the levator muscles in bringing it up to the posterior pharyngeal wall. The patient was 12 years of age, and the operation of staphylorraphy had been performed unsuccessfully. The Doctor considers a certain amount of training, as to the proper way of using the lips and tongue in the formation of sounds, to be essential to success after the adjustment of an appliance. In illustration, Dr. Baker exhibited several diagrams and plaster models with the appliances in position, and also two patients who showed a marked improvement in speech when wearing the apparatus.

Dr. Charles B. Porter said that he did not appear as an opponent of the views which had been advanced by the dentists; but he believed that the time has come, when it is best to review the operation of staphylorraphy, which is now so rarely performed. He would consider then:

1. Is the operation feasible and in what cases? Trelat says that it should be performed in any case unless the extent of the fissure is too great; unless previous operation has failed; or unless the parents object.

2. At what age? Dr. Porter thinks that it should be done when the child has a sufficient number of teeth to support a diaphragm, in order to keep the pressure of the tongue away from the stitches in the wound. He quoted many authorities, some of which gave the age as early as 16 months, and others at 16 years.

3. The method of operation. This should be comparatively simple. The edges should be freshened. The mucous membrane, together with the periosteum, should be freed from the bone by means of a periosteum elevator. Lateral incisions parallel to the line of union will relieve tension. Stitches should be introduced every quarter of an inch. These sutures may be either of silk or of silver wire. A diaphragm should be inserted to protect the stitches from the tongue.

4. Subsequent training in the formation of sounds is the most important of all things, and without this there can be no success attained.

Dr. Porter spoke of two cases in which he has performed the operation of staphylorraphy. In the first case, a child 14 months old, did well until about the sixth day, when the mother, in the absence of the nurse, gave the child a hard crust of bread, and the stitches were pulled out and the operation was a failure. In the second case, in a girl 16 years old, nine sutures were introduced and these were protected by a gutta-percha diaphragm. This patient did well and was exhibited. There was marked improvement in speech.

Dr. J. Collins Warren said that no operations for staphylorraphy were done previous to this century; but in the early part of the century Rue began to do the operation, and later it was done by Drs. Bigelow, John Warren, Cabot, Mason Warren and others. Dr. Mason Warren (the speaker's father) modified the method of operating, and performed a great many operations. He incised the soft parts freely, seized the uvula with a pair of long forceps, and then, having drawn it firmly across the fissure, he divided with a pair of strong curved scissors *all* of the tense tissues of the posterior pillars whether they were muscles or not. After this, the side operated on hung loose, and the same thing was then done on the other side. The edges of the fissure were then pared with a pointed double-edged knife and then the mucous membrane was separated from the parts beneath, almost as far as the alveolar processes, after which it was united by sutures. Dr. Warren performed about 100 operations. In his later operations he did not attempt to unite the fissure in its entire length, believing that the essential thing is the restoration of the arch with enough soft palate united to form a valve.

Dr. Warren exhibited the case of instruments with which his father had performed all of his operations for staphylorraphy. For sutures, he used silk which had been soaked in compound tincture of benzoin, which had the advantage that it prevented the knot from slipping. Some also claimed for it antiseptic qualities, but it is doubtful if this claim has any foundation.

Drs. Edward Reynolds and Robert W. Lovett read a paper on

Removal of Nasal Obstruction; Results in 112 Cases.

Dr. Robert W. Lovett gave the statistics of the series of cases, which were the ordinary patients that presented themselves for treatment at the Dispensary during three months in the summer. Three conditions were chiefly observed: (1) Chronic folliculitis; (2) congested mucous membrane, with abundant secretion; (3) a dry shining mucous membrane.

The treatment employed involved the destruction of the mucous membrane covering the lower turbinated bones by cauterization with chromic acid. Of the cases, 75 were subjected to this treatment;

33 were kept as check cases and only the ordinary conservative treatment by douches, etc., was employed. The history in the latter showed little if any improvement. In 5 cases there were exostoses or deviations of the septum.

Of the 75 cases in which cauterization with chromic acid was employed, 16 patients were cured; 38 were much improved; 2 were not benefited; the remainder were not heard from.

The method employed to ascertain the result after three months, was to send to each person an addressed postal card with questions to be answered and the card returned. The cards with the questions and replies were exhibited. Of the 75 cases, 16 patients were cauterized only once, and the remainder two, three, or even four times, according to the amount of the hypertrophy.

Of the check cases, two patients were cauterized after a trial without benefit of the conservative treatment for three months, with the final result of a cure.

Dr. Edward Reynolds said that the purpose of the mucous membrane of the nose is to temper the air which is going to the lungs, and thus the nose is the respiratory organ. The air always enters the lungs at a temperature of about 30° C. (86° F.), and saturated with moisture, whatever the external conditions are. The turbinated bones divide the anterior nares into three main compartments, which are normally narrow spaces, and the mucous membrane which envelops the turbinated bones is so richly supplied with blood-vessels, that it is almost an erectile tissue.

The operation which was done in these cases is simple and but little apparatus is requisite.

A six per cent. solution of cocaine is first sprayed into the nostril and then deliquesced crystals of chromic acid on a cotton applicator, made of a flattened piece of copper wire, are then applied to the whole surface of the lower turbinated bones, unless it is so large that it is best to make two applications, in which case it is first applied to the inner half. If examined with the speculum the eschar is at once seen. The application to the other nostril, if this is necessary, should be delayed from three days to a week, and the eschar should come away before a second application is made, if it be necessary. The eschar produced by chromic acid is very superficial and thus the degree of cauterization can be regulated somewhat. After the operation has been performed it is difficult or even impossible to detect any scar.

Dr. Reynolds exhibited a number of preparations of skulls that showed very nicely the swelling of the mucous membrane, the exostoses, and the deviation of the septum.

In the discussion that ensued, Dr. Vincent Y. Bowditch said that he had used chromic acid in the treatment of this class of cases for over a year in his office practice. He believes that the nose is the true respiratory organ. Some enthusiasts declare that nasal hypertrophies should be removed for everything, and thus they weaken their cause. Some even assert that asthma can be cured by this means.

Dr. Thomas A. De Blois said: The nasal hypertrophies appear both on the anterior and on the posterior ends of the turbinated bones. The hypertrophies which are anterior are the ones which are chiefly benefited by cauterizations with chromic acid. I prefer to use a round probe rather than a flat one, and I cauterize in lines only. These are made by drawing the end of the probe over the surface where it is desirable. The hypertrophies in the posterior nares are generally large, puffy masses, which shrink up a great deal after removal with the snare.

Dr. Henry L. Morse said: Many of the cases that have been reported by the speakers were patients sent by me from the Ear Department at the Dispensary to the Throat Department. I believe that a free opening through the nose is very essential in the treatment of the ear. In the case of children, nasal obstruction will increase the ingrowing of the drum of the ear, and unless the nose is taken care of, the benefit to the hearing by treatment is only temporary.

Dr. George A. Leland said: I have obtained good results from this method of treatment. There is a certain normal erectility to the mucous membrane of the nose, and hence is is not best to cauterize it too much. Dry catarrh may follow. Dr. Bosworth, of New York, applies the chromic acid by fusing a bead on the end of a silver wire. The reduction of the mucous membrane of the turbinated bones has cured the condition known as "hay fever." I saw a patient four years ago who had suffered for twenty-three consecutive years from hay fever. Not having any chromic acid with me, I curetted the mucous membrane from the lower turbinated bone. There was of course much bleeding, but there was no "hay fever" that year, nor any since.

S.

FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

The New Ophthalmoscopic Examination.—Rare Pathological Specimens. — Three Dermoid Cysts. —Therapeutical Suggestions in Diphtheria.—The Latest Victim of "the Code."—German Students and their Habits.

BERLIN, Dec. 21, 1888.

The new ophthalmoscopic examination advocated at a recent meeting of the *Berliner Medicinische Gesellschaft* by Dr. Bellarminow, of St. Petersburg, has attracted universal interest among the profession; regarding its scientific value and practical utility, however, considerable difference of opinion seems to exist. Your correspondent has interviewed the two greatest ophthalmological authorities in Berlin, Profs. Hirschberg and Schweigger, on the subject in question, and has found to his surprise a very different estimation of Bellarminow's method. Prof. Hirschberg said that "the same method, or one strikingly similar to it," had been described by him in 1882, in the *Archive* of Du Bois Raymond (p. 501). The method then published had reference only to the eye of fish, the pike in particular. As cocaine was not yet known Prof. Hirschberg said he had no great confidence in the new method, and did not expect any great advantages from its application. Prof. Schweigger, on the contrary, spoke rather warmly of the new method, and emphasized especially its ease of application. He stated that he had used the method repeatedly and was prepared to recommend it.

As some of the readers of the REPORTER may not yet be familiar with Bellarminow's method it will not be amiss briefly to enunciate its principles. The cornea is first anæsthetized with a two per cent. solution of cocaine, and a plain glass plate is then brought into contact with and gently pressed against it. The moisture of the cornea will by capillary action develop a layer of fluid between the glass plate and the cornea, and the curvature of the latter in this way will be obliterated—two parallel surfaces being substituted for the convex lens, the normal cornea. In other words, a thin glass plate is pressed on the cocainized cornea and a high grade of hypermetropia is produced, and, consequently, an enlargement of the ophthalmoscopic field. The simplicity and ease of application of the new method are evidently its chief advantages, but it is questionable if delicate structural changes can be observed by its use. The new method will recommend itself to beginners, and for purposes of demonstration, as an examination of the eye may be made through its use by two or three persons at the same time. It may be of interest to mention that Bellarminow's principle has been practically utilized by the Fick contraction-spectacles, which consist of a glass plate ground in accordance with the curvature of the cornea and placed on the latter. The slight interval between the plate and the cornea is filled out by a drop of fluid, which eliminates the influence of the irregular curvature of the cornea.

Berlin is justly termed the pathological centre, for nowhere is pathology cultivated to the same extent as here. The focus of all pathological work is, of course, the *Patologisches Institut*, an integral portion of the Royal Charité, and presided over by Virchow. The collection of pathological specimens in the Institute is a truly grand one, and is supposed to be unsurpassed by any in the world. The latest additions to this collection were made by Virchow last week, and consist of a kidney showing deposits of lime as a result of poisoning with cyanide of mercury. These deposits can be seen with the naked eye in very fine sections on favorable illumination. Microscopically, of course, the lime deposits are very distinctly visible. Another recent addition to the collection is a very rare specimen of idiopathic perichondritis of the arytenoid cartilages. Hitherto it has been usually believed that purulent perichondritis of these cartilages was traceable always to typhoid, syphilitic, or to tubercular infection. The idiopathic nature of the perichondritis in the specimen in question was well established. Dr. Bramann, assistant of Prof. Bergmann, has recently enriched the collection by four dermoid cysts of the nose, which were all taken out by himself. One cyst was from a child four months old.

Dr. Rieck's proposal to treat diphtheria with yeast, though theoretically interesting, will find but little appreciation with the practitioner of medicine. Rieck's treatment is based on the fact that the gastric contents in diphtheria, just as in cholera, scarlet fever and measles is always alkaline. The yeast-cells—cerevisiæ—proliferate only in a neutral or slightly alkaline soil, which at the same time contains sugar. They furnish carbonic, acetic and lactic acids. The latter acid has been extensively used in the treatment of diphtheria, though

rarely ever in quantity sufficient to acidify the gastric contents. If lactic acid is pushed that far the proliferation of the yeast-cells stops simultaneously with the reduction power of the micro-organisms, and recovery takes place. The proposal is, in other words, an attempt to combat the specific diphtheria-germs with proliferating heterogenous cells—a fight between bacillus and cell on a common soil, the blood. The method constitutes, therefore, an experiment the reverse of a pure culture.

Another suggestion regarding the treatment of diphtheria, made by Dr. Gaucher, of Paris, to cauterize the deposits with the Paquelin cautery, will not be received with greater enthusiasm than Rieck's proposal. Gaucher has saved 17 cases by this method, and Dubousquet has treated 81 cases with a mortality of only five per cent. Gaucher's method, by the way, is nothing new, for a German physician proposed the same treatment in 1885. Your correspondent in that year assisted Prof. Henoch, of the Royal Charité, in the cauterization of deposits in a grave case in a girl thirteen years old. The girl recovered and, as Prof. Henoch thought, only as the result of this treatment. Nevertheless, the cauterization treatment has never been adopted by Prof. Henoch nor by any other German pediatrist. It is clear, that this treatment can only be of avail in the initial stage of the affection, before the specific germs have entered the circulation. Besides, the treatment is undoubtedly too heroic ever to become popular.

Adherence to false conceptions of honor and to medieval and barborous usages has again resulted in the death of a human being, this time a youthful medical student of the Berlin University. A mere difference of opinion, and the assertion that academical associations, the chief principles of which consist in antisemitic tendencies, are a disgrace to German Universities, led to a duel with pistols, three rounds at ten paces. Young Blum was shot through the left lung, and died immediately. It is a shame and disgrace that in an enlightened country such as Germany, and among its most intellectual associations, such barbarous and outrageous customs should still exist. Not a year passes that the "code" does not demand its victim or victims at some of the German Universities. I believe that the fault is entirely with the Government, and that severe punishment of the murderers will alone prevent the further perpetration of this atrocious crime. The great trouble in this matter, however, is the fact that the highest officials of the Government have all been ardent advocates of the code, and that they cannot well condemn in others what they have upheld themselves. Mere fencing, which is the universal custom among all German students, though from an American point of view scarcely commendable, is, nevertheless, regarded in Germany as absolutely necessary to the maintenance of a proper *esprit de corps* among the students. As the result of this view and practice every other student whom you meet at Berlin or any other German University has a more or less lacerated face, of which he feels very proud. He exhibits his facial scars with the same pride and self-consciousness as, for instance, an officer his medals and orders. In some future letter I will write more about the German students and their habits.

J. S.

PERISCOPE.

Poisoning with Cyanide of Mercury.

At the meeting of the Berlin Medical Society, November 21, 1888 (*Deutsche med. Wochenschrift*, Nov. 29, 1888), Virchow demonstrated specimens from a case of poisoning with cyanide of mercury, which presented a series of anatomical changes analogous to those described by him as occurring in poisoning with corrosive sublimate. The patient from whom the specimens were taken was a young man who had poisoned himself, but who survived eight days, so that the changes produced by the poison were very completely shown. The parts of the digestive apparatus above the pylorus, with which the poison came in contact first, presented no noteworthy changes of any kind, and especially no traces of erosion. The more marked changes began in the lowest section of the ileum. In a characteristic manner the affected areas occur at intervals, always on the flexures of the colon, while between these areas are comparatively normal stretches of tissue. The kidneys throughout the cortex, but preferably the convoluted tubules, are filled with lime to a much greater extent than in any of the cases hitherto described. Virchow explains this result by saying that the mercury had acted upon the bones so that the lime salts were set free in the circulation; thence they were carried to the kidneys, which were inflamed by the effort at excretion.

Foreign Body in the Larynx.

At the meeting of the Medico-Chirurgical Society of Glasgow, Oct. 12, 1888 (*Glasgow Med. Journal*, Nov. 1888), Mr. George A. Clark read notes of a case of foreign body in the larynx, and exhibited the patient.

J. H., 9 years old, was admitted on August 16 into Ward 25 of the Royal Infirmary, suffering from what was described as fits, coming on, at irregular intervals, without any warning, and for which no cause could be assigned. Between the attacks, which lasted for variable lengths, the patient seemed in the best of health, was able to run and play about, and in every way enjoy himself; but when seized with a "fit" he became cyanotic, and after the seizure had passed off there was profuse perspiration with exhaustion. As the character of these attacks did not simulate those of epilepsy, and as no history could be obtained, the patient was kept under close observation. It was then noticed that these attacks, which were spasmodic, seemed to come on after the slightest attack of coughing or laughing, during which time the child had to sit up in bed; and although some attacks passed off in a few moments, others would last for some time, and when a constant irritating cough terminated in a severe fit of coughing the child would struggle for breath, and at times become so cyanotic as to be in danger of suffocation. It now became conclusive that the affection was in the larynx, and on inquiry from the parents it was learned that a bean was supposed to have gone down his throat. It seems that on the previous day he was playing with some other boys, during which time he had his mouth full of beans, and a bigger boy having run after him hurled him to the ground on his back and knelt on his chest, when, it was supposed, one of these beans went down his throat. On the morning after admission the throat was carefully examined with the aid of the laryngoscope, but nothing could be detected. During that day he had a few attacks, which, at times, became somewhat serious; but beyond causing great prostration, nothing serious followed. During the night he had attacks also, and on the following morning it was decided to perform tracheotomy; but after making preparations, owing to the absence of any positive proof of the presence of a foreign body, it was postponed, with the understanding that the operation should be done only if an attack should come on so severe as to threaten life. That same afternoon Mr. Clark happened to pass through the ward, when he saw the boy sitting up in bed playing dominoes with two others. A few seconds later he was followed by one of the boys, who said that the child was choking. On returning, the boy was found lying back in bed quite cyanotic, and his breathing short and hurried. Mr. Clark immediately held him up by the legs and smacked his back, but this decidedly made him worse. His breathing became slow and gasping, and he seemed half insensible, so tracheotomy was performed low down. On opening the trachea immediate relief was given, and as the operation was only done as a palliative measure, the tube was introduced. That night little if any spasm took place, and the patient passed a fairly comfortable night. On the following morning the tube was removed and the trachea examined, but nothing could be detected. The tube was again introduced, but the spasms still continued, and at times became so troublesome as to be only checked by the inhalation of a few drops of chloroform. During these attacks Mr. Clark noticed a distinct "click" as of something coming up from below and striking the lower end of the tube; and the patient himself said he could feel something rising and falling. The temperature which had been high had fallen since the operation, and as the spasms were also decreasing the tube was ordered to be removed. No bad effects followed this, and as the throat showed signs of laryngitis it was suggested that only this was the cause of the spasms. Potassium bromide was therefore given; but it was soon noticed that as the wound began to close the temperature began to rise and the spasms to increase in severity. By September 1 the wound had quite healed, and the patient had a very severe spasm during the night, which had to be allayed by the inhalation of chloroform. On the following night Mr. Clark was again called, being told that the child was threatened with convulsions. He again found him in an asphyxiated condition, and resolved to perform tracheotomy again, if possible to satisfy himself that there was nothing present. Accordingly the old wound was opened up and a free opening made in the trachea. The trachea was then opened up well with retractors, which caused a severe spasm of the glottis. Mr. Clark then watched closely, and after some time noticed something occasionally rise and immediately fall. This was dark in color, and at first sight seemed like a clot of blood, but after being successful in touching it, he

was satisfied that some solid body was present. He then took a tracheal hook and opened up the trachea with the retractors to cause a spasm, and, watching his opportunity, succeeded when the body rose in placing the hook beneath to prevent its return. He then managed to turn the hook round, and pinning it, withdrew it. The foreign body turned out to be a horse-bean, and its removal gave, of course, immediate relief. The wound was dressed, and healed rapidly. There was no return of spasms. The patient was dismissed September 9.

Inoculation with Leprosy.

The *Lancet*, Nov. 24, 1888, says that Archdeacon Wright lately called public attention in *The* (London) *Times* to the spread of leprosy, and the evidence of its contagiousness. He now furnishes a report from the Board of Health, Honolulu, giving information of the condition of a condemned criminal at Oahu Gaol who was inoculated with leprosy by Dr. Arning on November 5, 1885. Dr. Emerson, the President of the Board of Health, and Dr. Kimball examined this man on September 25, 1888, and reported that he presented marked signs of tubercular leprosy. Archdeacon Wright thinks that this "terrible experiment" goes far to prove the contagiousness of leprosy; and there is no doubt that such an experiment is proof of its inoculability. But we venture to think that the case for contagion is not rendered any stronger than it was already by the facts of the disease and of its nature gathered from various sources of late years; and it is questionable whether the transmission of such a disease by inoculation, even on a condemned criminal, is an experiment that ought rightly to have been made.

On the other hand, in a letter to the *British Med. Journal*, Dec. 15, 1888, H. P. Wright, Rector of Greatham, gives the following important particulars, which were contained in a letter to him from Dr. Arning, who asks a very reasonable question: "The experiment was performed after mature deliberation, and on the authority of the advisers of the Crown and the Privy Council of State; influential foreigners, laymen, and learned judges reporting in committee on the subject. It was done with the condemned criminal's written consent, and with all such due care and exactness as really to advance our knowledge of the obscure disease. Will it not stand as having been done in the interests, not against the laws, of humanity?"

Purulent Pericarditis; Aspiration and Drainage.

At the meeting of the Clinical Society of London, Nov. 23, 1888, Dr. Dickinson related the case of a boy, 10 years old, who was brought to St. George's Hospital, having had symptoms which Dr. Harris and Mr. Noad, both of Norwood, interpreted as pyæmic. A large gluteal abscess was followed by signs of pleural effusion and œdema of the face and chest. On admission, on June 15, 1887, there was evidence of effusion in the left pleura and in the pericardium. The position of the heart was almost indiscoverable amid the dulness, which involved the left pleural and præcordial regions. There was much dyspnœa, blueness, and irregularity of pulse. There was œdema more or less general, but especially marked about the thorax. The liver was enlarged or depressed so as to reach the umbilicus. On the 18th the pleura was aspirated, and thirty-seven ounces of serum were drawn off, which operation was repeated on the 23d, with the removal of thirty-two ounces. The dyspnœa, blueness, and œdema were but slightly and temporarily relieved by each operation, which had to be repeated on the 25th and 28th, so great was the distress and so rapid the reaccumulation. On the 30th the futility of dealing with the pleura having become apparent, the pericardium was aspirated by Mr. Rouse, and one ounce of creamy pus withdrawn; the aspiration was repeated with more success on July 8, twelve ounces of similar fluid being withdrawn, and on the 15th, with the withdrawal of nineteen ounces. The place selected for puncture was on the right side close to the edge of the sternum, in the fifth interspace. The heart before each of these operations had been drawn to the left by a preceding evacuation of the pleura. The lower part of the pericardium where the swing of the heart was greatest, and the right extremity of the cavity, from which the heart was furthest removed, was obviously the part which could be penetrated with the greatest safety. By July 22 the pericardium was again as full as ever, and the general symptoms as distressing. It was clearly necessary to replace aspiration by a tapping opening. Mr. Rouse accordingly made an incision where the punctures had been, and put in a tube. The aspiration was followed by some faintness, but subsequently by great relief. Not to follow the case in further detail, recovery, after some temporary drawbacks and three subsequent aspirations of the pleura,

became complete. By the middle of September there was no remnant of the pericardial puncture except a small cicatrix, which moved with each beat of the heart. In the course of less than two months the chest had been punctured sixteen times, the pleura twelve times, with the removal of serous fluid; the pericardium four times—thrice with the aspirator, once with a knife—so as to leave an opening and a constant discharge of pus. A remarkable fact in the history of the case—one, however, not unprecedented in similar circumstances—was the nearly total absence of præcordial friction, which was recognized only on one occasion.—*British Med. Journal*, Dec. 1, 1888.

Meningocele; Ligation and Removal of Sac.

Dr. W. O. Roberts, Professor of the Principles and Practice of Surgery, University of Louisville, in communicating this case to the *American Practitioner and News*, Dec. 1, 1888, says that on March 19, 1888, he saw, with Dr. Milner, of Uniontown, a child five weeks old, who had a pedunculated tumor, about the size and very much the shape of a goose egg, situated just beneath the occipital protuberance. The history of the case was as follows: The growth was first noticed immediately after the birth of the baby. It was then about one-half its present size. When the child slept the tumor was much smaller; and would become suddenly greatly swollen and tense when it cried. The tumor had always been exceedingly sensitive to the touch, and the slightest pressure upon it caused the child to cry violently. In consequence, it had never been able to lie on its back. Dr. Milner was called in a few days before Dr. Roberts saw it, and tapped the growth and drew off a quantity of serous fluid slightly tinged with blood. This diminished the size, of course, but did not lessen the sensitiveness of the growth. He then advised that the child be brought to Louisville, where Dr. Roberts saw it with him. At the time of the latter's visit the child was asleep in its mother's lap, lying on its abdomen. Hanging from the occiput was a flabby tumor. Just as he touched the growth the child awoke, crying violently. There was an immediate and great distension of the tumor. The pedicle or attached portions measured five and the body of the tumor eight inches in circumference. The skin over the tumor was well covered with hair. Fluctuation was marked. There was no pulsation. The growth was unmistakably a meningocele.

As the growth was increasing rapidly in size, and as the sensitiveness had not diminished a particle after Dr. Milner had partly drawn off the fluid, its removal was advised. The parents, having been fully advised of the nature of the affection and the danger of the operation, decided to have it performed. On the following day Dr. Roberts removed the tumor. An elliptical incision was made through the skin and fascia covering the neck of the sac. This was first carefully dissected, then transfixed and ligated close up to the edge of the opening in the skull with a double stout silk ligature, and the tumor cut through in front of the ligature. As the ligature was tightened the child had a slight convulsion. When the tumor was opened nearly three ounces of a slightly bloody serous fluid escaped. The cyst was sacculated. There were three sacculi connected with the main cavity of the cyst. No brain substance was found in it. The opening in the skull was just below the occipital protuberance, and was about an inch in its vertical and half an inch in its transverse diameter. The ends of the ligature around the neck of the sac were cut short, and the integuments then brought together, provision being made for drainage. The operation was done under strict antiseptic precautions. Recovery took place without an untoward symptom. At the end of ten days the wound had healed, and the child was taken to its home. Three months after the operation the child was reported to be in perfect health, with no recurrence of the tumor.

Case of Polyuria with Localizing Symptoms.

At the meeting of the Pathological Section of the Medico-Chirurgical Society of Glasgow, Oct. 19, 1888 (*Glasgow Med. Journal*, Nov. 1888), Dr. Alexander Robertson read the notes of a case of polyuria.

A patient was shown suffering from diabetes insipidus of about eight months' standing. He was a soldier for some years, and is now about 30 years of age. Careful examination failed to elicit any indications of syphilis, and none were admitted. His illness dates from about six months before admission into the Infirmary, which was on the 2d August last. He had lost about 28 lbs. in weight in the earlier months of his malady. No probable cause could be

assigned. The amount of urine ranged from 150 to 190 ounces in 24 hours, though once it had reached 290 ounces. The specific gravity was generally from 1003 to 1006. It was always free from albumin and sugar. Dr. Ritchie had found that the quantity of urea excreted in the 24 hours was 479 grains. There were no general symptoms of renal disease. Though scarcely any appreciable difference existed between the two sides of his face when at rest, movements which called into action the lower facial muscles—*e.g.*, showing his teeth, the articulation of certain words, etc.—showed that the right side was distinctly weak. On many occasions, especially during the last three or four weeks, he had sudden attacks of difficulty in speaking, lasting from 20 minutes to 24 hours. They were preceded in most cases by a feeling of sleepiness. The defect was in articulation—a marked stammering, with special difficulty in the beginning of a sentence; there was no loss of language. Dr. Fergus reported that there was a moderate degree of neuro-retinitis, and that the movements of the right pupil (the sight of the left eye being damaged by an old injury) were restricted, not responding much to light, or accommodation, or cutaneous irritation. The pupil itself was moderately contracted. The pulse ranged between 50 and 60. Without inquiry he stated that he had often a feeling of chilliness, but that sometimes he had only become aware of this fact by the remarks of his friends on his pale, cold aspect. Besides this, several times he had felt the right ear very hot. Dr. Robertson had seen it in this condition, and said that it was scarlet from the injection of the blood-vessels, and that the redness extended to the cheek. The contrast with the other ear was very marked, as it was blanched and chilly. There was no undue secretion from the eye or nose. General sensation and motion had never been affected. Consciousness had not been involved, and his general intelligence was good.

In reviewing the facts of the case, Dr. Robertson said: As you are aware, Claude Bernard induced a glycosuria by puncturing the floor of the fourth ventricle, and by puncturing, a little higher up, a polyuria. Still, there are wanting cases in the human subject corroborating the idea that the lesion is in that part of the brain; but this case clearly supports the indications derived from Claude Bernard's experiments. The speech being affected in the manner described pointed to temporary disorder in the nucleus of the ninth nerve. But there is an organic and more permanent defect of the facial nerve present, the nucleus of which is a little higher up, but not far from the same situation. Also we have temporary irritation and palsy of different parts of the vaso-motor nerves, the centre of which is situated there also. There is probably an important controlling centre of the vaso-motor system in the cortex of the brain, but we also know that there is a centre of great importance in the medulla oblongata. Further, the slowness of the pulse may indicate an inhibitory influence on the pneumogastric nucleus, but the reduction in the number of pulsations did not warrant much stress to be laid on this point. We have, then, these indications of disease independent of the polyuria altogether. The state of the pupil might also suggest some degree of paralysis of the sympathetic. The pupil is generally somewhat contracted, which may no doubt be due to stimulation of the nucleus of the third nerve; but in view of the other indications of vaso-motor paralysis, we may conclude that not improbably this condition of myosis is due to the same cause. With regard to the polyuria, what is it to be ascribed to? Is it due to trophic nerves whose function is impaired, though their existence is still called in question; or is it rather due to a paralysis of the vaso-motor nerves of the kidney? Dr. Robertson held that the latter view was much the more probable, considering the clear indications of general disorder of the sympathetic which were obvious in the case. He thought there was distinct change of nerve-structure present, though scarcely amounting to a definite tumor.

Medicinal treatment, the details of which were mentioned, had not been of much use. It was, however, intended to try galvanism passed through the medulla oblongata.

—Dr. R. Brudenell Carter, of London, according to the *American Lancet*, Jan., 1888, says that when he sees a pamphlet or book purporting to contain an addition to our knowledge, he tries first of all to ask himself: "What do I know of the author? What is his character, in the estimation of those who know him well, for sagacity, dexterity, and truthfulness? What is the extent of his experience? What are his claims to be received as a guide and instructor in the matters with which he attempts to deal?" If these questions are fairly answered, the pamphlet will sometimes be relegated to the waste basket.

THE
MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

The Terms of Subscription to the serial publications of this office are as follows, payable in advance:

Med. and Surg. Reporter (weekly), a year,	$5.00
Quarterly Compendium of Med. Science, -	2.50
Reporter and Compendium, - - - -	6.00
Physician's Daily Pocket Record, - - -	1.00
Reporter and Pocket Record, - - - -	6.00
Reporter, Compendium, and Pocket Record,	7.00

All checks and postal orders should be drawn to order of

CHARLES W. DULLES,
N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

☞ SUGGESTIONS TO SUBSCRIBERS:
See that your address-label gives the date to which your subscription is paid.
In requesting a change of address, give the old address as well as the new one.
If your REPORTER does not reach you promptly and regularly, notify the publisher *at once*, so that the cause may be discovered and corrected.

☞ SUGGESTIONS TO CONTRIBUTORS AND CORRESPONDENTS:
Write in ink.
Write on one side of paper only.
Write on paper of the size usually used for letters.
Make as few paragraphs as possible. Punctuate carefully. Do not abbreviate, or omit words like "the," and "a," or "an."
Make communications as short as possible.
NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

JUDICIOUS MANAGEMENT OF A CASE OF SUPPOSED HYDROPHOBIA.

Near the end of last December Dr. Healy, of Philadelphia, was called to attend a very ill young man who had a history of a dog-bite and certain symptoms of hydrophobia. In conference with Dr. Wirgman, he decided to invite to consultation a medical man who is well known as a specialist in nervous diseases, and another who had made a special study of hydrophobia.

When the consultation was held a very careful and thorough examination of the patient was made, and it was found that he presented clear evidence of disease of the brain. He had some paralysis of one arm and paresis of the muscles of the mouth and throat. He had a most typical difficulty in swallowing liquids, unaccompanied by any real pain. This was exactly like the symptom to which the name "hydrophobia" is most fitly applied. It was wholly due to want of power or of co-ordination in the muscles of the mouth and fauces, and not to any notion of the patient that he was suffering with rabies humana. This fact was ascertained to the entire satisfaction of all of the consultants.

The case was regarded as one of disease at the base of the brain—perhaps in the pons Varolii—and treated accordingly.

The condition of the patient, at the time of the consultation, was so grave that little hope was entertained that he could recover; and, as was anticipated, he died in a few days. The cause of death was not hydrophobia, however, and the case will not go to increase the fear of this disorder. We call attention to it chiefly to applaud the judgment of the physicians immediately in charge, who secured what we regard as an ideal consultation. They themselves were thoroughly competent to judge of the purely general medical aspects of the case, and they secured the counsel of a man familiar with the difficult problems of disease of the brain and spinal cord, and of one who had made hydrophobia a subject of special study for years at the bedside and in medical literature.

We believe that it would be of incalculable value to our science if every case of suspected hydrophobia could be thus studied, carefully and without bias, by men skilful in general diagnosis, who would not fail to recognize any underlying constitutional or local disease which might cause dysphagia, and men trained to detect the evidences of disease of the brain and spinal cord. By such a combination the danger of an error of diagnosis would be reduced to a minimum, and we have no doubt that in many cases the fatal result which usually follows a diagnosis of hydrophobia would be averted.

PROTECTION FOR AMERICAN PHYSICIANS.

A recent editorial in the *Medical Record*, making a plea for the protection of American physicians against the competition of German physicians, who come to this country to practise, has been somewhat misunderstood by the *Press* of Philadelphia, which takes the *Medical Record* to task, and asserts that the community needs protection against incompetent physicians—native as well as foreign. The *Press* editorial will be found in another column.

In this the *Press* is undoubtedly right, and no one, we are sure, will endorse its sentiments more heartily than the *Medical Record*. It is unfortunate that the title and contents of the editorial in the latter journal are misleading, and that it seems to lay more stress upon the nationality of the competing physicians and the cheapness of their charges than upon the imperfection of their medical training. As a matter of fact, American physicians need no legal protection against any class of competitors, except on the ground of unfitness for their work; and our lay contemporaries must not mistake a local wail for a general complaint. In New York the social and professional conditions are peculiar, and largely influenced by its enormous foreign population. It is, in important respects, unlike any other American city, and probably less American than any other. No doubt some of its physicians are inconvenienced by the natural consequences of its peculiar make-up; but this is a purely local matter, and of no interest outside of New York.

All over the United States the members of the medical profession are content to protect themselves, and to secure respect and patronage by deserving it. They are the strongest advocates of a high standard of medical education, and welcome every evidence that the community is awaking to the necessity for exacting this from those who intend to practice medicine. They will not endorse any effort to secure discrimination in their favor for other reasons than those of merit, and the best of them would be glad to have the State take intelligent charge of the regulation of medical practice and abolish all the privileges of the mere title of M.D., requiring a license to practice, which should be issued only to those who pass a satisfactory examination before a Board of Examiners appointed by the State.

This is the kind of protection which every intelligent citizen would approve, and which we hope some day to see established in this country.

ABORTION IN CHICAGO.

The *Chicago Times* has recently been investigating the subject of criminal abortion in Chicago, by means of a decoy, who visited a large number of midwives and physicians, pretending she was pregnant and asking them to help her out of her dilemma. The results of this investigation were published in December, and they show that a woman who is ready to undergo the risks of an abortion in Chicago need not search hard to find a medical man to share them with her for a consideration.

The issue of the paper for Dec. 17 contains a list of midwives and physicians in Chicago who would bring on an abortion—one of the latter being the official surgeon of the Police Department, and a supplementary list of men who declined to commit this crime themselves, but recommended others who would do it.

The same issue contains a letter from Dr. Doering, President of the Chicago Medico-Legal Society, expressing approval of this investigation and promising the support of the Society to its work. This fact may be taken as an index of the attitude of every decent medical man in the United States; for there are no more uncompromising enemies of the crime of abortion for convenience than physicians; and the fact that some men or women, whom the lax laws

of most of the States permit to practice medicine, are willing to use the knowledge they have in an infamous way simply illustrates the adage that black sheep are to be found in every flock.

We cannot approve of the sensational way in which the *Chicago Times* has been exploiting its discoveries in regard to the crime of abortion in Chicago, and fear that it may do much harm by advertising the methods of abortionists; but we trust that this serious disadvantage may be offset by the fact that it is also calling attention in a most striking way to the heinous character of this offense against public morals.

ELECTION OF PROFESSORS AT THE UNIVERSITY OF PENNSYLVANIA.

At the last regular meeting of the Trustees of the University of Pennsylvania, Dr. John Ashhurst, Jr., now Professor of Clinical Surgery, was elected to the chair of general Surgery vacated by the resignation of Dr. Agnew, and Dr. James Tyson, now professor of Morbid Anatomy and General Pathology, to the chair of Clinical Medicine, made vacant by the resignation of Dr. Osler. The title of Emeritus Professor of Surgery and Clinical Surgery was conferred on Dr. Agnew. This action of the Trustees will make two more vacancies: one in the chair of clinical surgery, and one in the chair of morbid anatomy and general pathology. It is commonly believed that the former of these positions will be secured by Dr. J. William White, of Philadelphia, and the latter by Dr. John Guitéras, of Charleston. Dr. White is now Clinical Professor of Genito-Urinary Surgery and Demonstrator of Surgery in the University, and Dr. Guitéras is a graduate of the University, who was formerly one of the Visiting Physicians to the Philadelphia Hospital, and enjoyed an enviable reputation as a diagnostician and clinical lecturer. He is at present Professor of Pathology in the South Carolina Medical College, and a surgeon in the U. S. Marine Hospital Service.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

DIE GESCHICHTE DER TUBERCULOSE. Von Dr. med. AUGUST PREDÖHL, assistenzarzt am allgemeinen Krankenhause zu Hamburg. 8vo, pp. 502. Hamburg und Leipzig: verlag von Leopold Voss, 1888.

This is an important contribution to the history of the development of our ideas concerning tuberculosis, showing how they emerged from dimness and gradually assumed a definite form. Even the earliest writers on the subject recognized the presence of nodular bodies in diseases of the lungs, which they called tubercles, but which would hardly come up to the more modern acceptation of that term. All the so-called lung tubercles of that time were contained within the vesicular structures. But here, as in everything else, our knowledge advanced from the simple to the complex, and disease within the air cells was of easier recognition than that without. Stark, in 1785, was the first to realize that the lungs became studded with small nodules, the composition of which he believed to have been coagulated lymph. Both Laennec and Louis, following Bayles, admitted but one kind of phthisis—the tubercular. Rokitansky, in 1845, was the first to distinguish between true and false tubercle; and he termed the first: interstitial tuberculosis, and the second: pneumonia. Engel and Hamernyk agreed with Rokitansky; but Addison, who held that tubercle is due to a proliferation and accumulation of epithelial cells, was probably the first to comprehend the true nature of the intra-vesicular nodule. It was not, however, until 1854 that the illuminating mind of Virchow defined the nature and proper relation of these structures, as follows (a) tubercle, or miliary tuberculosis,—a hyperplasia (neubildung) of lymphatic tissue; (b) pseudo tubercle—an inflammatory product.

With Villemin began a period of experimental investigation, which, ending with Koch, tends to overturn the exact ideas of the earlier workers in this direction. The criterion of tubercle now is the bacillus, and the nature of a product is judged in relation to the presence or absence of this micro-organism. Investigation shows that the bacillus is found in the false as well as in the true tubercle. There is no reason to find fault with this drift of things, if the bacillus theory tends to place our knowledge of tubercular diseases on a more scientific basis than it has heretofore occupied. It is evident, however, that the bacillus is not satisfied with anything short of the whole earth, for just so soon as it became a recognized element in the diagnosis of tubercle, it also began to play the rôle of an etological factor. In the first, it is a success; in the second, it is a failure. Clinical, and not experimental, medicine must render an ultimate decision as to the etiological relation of the bacillus tuberculosis, and this otherwise very valuable work is slightly defective in not giving a more complete history of the clinical statistics which have already been garnered, and which substantially show the worthlessness of the bacillus as a practical cause of tuberculosis. Reference is made especially here to the Brompton Hospital statistics, and to the *Statistical study of the Etiology of Phthisis Pulmonalis*, contributed by Dr. Schnyder to the *Correspondenz-Blatt für Schweizer*

Aertzte, 1886, Nos. 10, 11 and 12; both of which are left unnoticed in the book before us.

The book as a whole is of uncommon interest, and we sincerely trust that it will obtain a large number of readers on this side of the Atlantic.

PAMPHLET NOTICES.

[Any reader of the REPORTER who desires a copy of a pamphlet noticed in these columns will doubtless secure it by addressing the author with a request stating where the notice was seen and *enclosing a postage-stamp.*]

180. MINERAL AND THERMAL SPRINGS OF CALIFORNIA. By W. F. McNUTT, M.D., San Francisco, Cal. From the *Transactions of the Ninth International Med. Congress*, vol. v, 9 pages.

181. DOUBLE OVARIOTOMY DURING PREGNANCY; SUBSEQUENT DELIVERY AT TERM. By WILLIAM WARREN POTTER, M.D., Buffalo, N. Y. From the *American Journal of Obstetrics*, October, 1888. 4 pages.

182. SULFANOL, THE NEW HYPNOTIC. By B. SACHS, M.D., New York. From the *Medical Record*, October 6, 1888. 8 pages.

183. VALEDICTORY ADDRESS AT THE COMMENCEMENT OF THE DEPARTMENTS OF MEDICINE AND DENTISTRY OF THE UNIVERSITY OF PENNSYLVANIA, May 1, 1888. By JOHN ASHHURST, JR., M.D., Philadelphia. 14 pages.

184. A PECULIAR CASE OF HERPES ZOSTER OPHTHALMICUS, SEROUS IRITIS, OR "OPHTHALMO-NEURITIS." By GEORGE M. GOULD, M.D., Philadelphia. From the *Polyclinic*, October, 1888. 6 pages.

185. TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. FIRST ANNUAL MEETING. ABSTRACT. From the *Buffalo Med. and Surg. Journal.*

186. GRADUATED TENOTOMY IN THE TREATMENT OF INSUFFICIENCIES OF THE OCULAR MUSCLES. By CHARLES HERMON THOMAS, M.D., Philadelphia. From the *Transactions of the Philadelphia County Med. Society*, 1888. 12 pages.

187. REPORT OF PROCEEDINGS OF THE ILLINOIS STATE BOARD OF HEALTH. October, 1888. THE YELLOW FEVER EPIDEMIC OF 1888, ETC. 25 pages.

188. PERI-CÆCAL INFLAMMATION. PATHOLOGY. By JOHN H. MUSSER, M.D. DIAGNOSIS. By WILLIAM PEPPER, M.D. TREATMENT. By THOS. G. MORTON, M.D. From the *Transactions of the Philadelphia County Med. Society*, 1887. 19 pages.

180. This pamphlet, as its title indicates, gives an account of the various springs of California which are of value in the treatment of diseased conditions. It contains useful information as to the location of these resorts, and tables of analyses of the constituents of many of the waters.

181. Dr. Potter reports the first case of which he has knowledge in which a double ovariotomy during pregnancy was followed by delivery at term. His patient was in the fourth month of pregnancy. The history of the case is exceedingly interesting.

182. The spelling of the title of this pamphlet is probably chargeable to the Editor of the *Medical Record*, and not to the author, as he could hardly have made such a mistake. The substance of the paper is a report of Dr. Sachs's experience with sulphonal in eleven cases. He finds—as most men who use it have found—that sulphonal is a good hypnotic in cases of functional insomnia; and that it has very little narcotic influence.

183. Dr. Ashhurst's address contains kindly and valuable advice to those for whom it was prepared, and is of such a character that it is not surprising to find the name of a bishop heading the list of those who asked him for a copy for publication.

184. Dr. Gould gives the history of a case of ophthalmo-neuritis with some peculiar symptoms. His report will interest ophthalmologists on account of the curious features of the case, and its developments under treatment.

185. The contents of this pamphlet are indicated fully by its title. The cover states that it is from the *Buffalo Med. and Surg. Journal;* the first page credits it to the *Amer. Journal of Obstetrics.* The contents are interesting and instructive; and, as might be expected, there is rather a preponderance of gynecology over obstetrics in it.

186. As Dr. Thomas's paper was published in full, with the accompanying plate, in the REPORTER, April 14, 1888, its contents are probably familiar to most of our readers. It advocates and illustrates the advantages of the method of treating insufficiency of the muscles of the eyeball proposed by Dr. Stevens, of New York, to which we have more than once called attention in these pages.

187. This report, prepared by Dr. Rauch, contains some very instructive reading in regard to the history of the recent yellow fever epidemic and the absurd and damaging methods adopted to limit its spread. We can heartily commend it to the attention of our readers, in the hope that it may correct some false notions in regard to yellow fever, which experience teaches are entertained by medical men as well as by the laity.

188. These papers, with the discussion which followed their reading, were published in the REPORTER, Jan. 7, 1888, and they are so valuable that we can recommend those who have become subscribers since that date to endeavor to get a copy of this pamphlet and make themselves acquainted with its contents.

LITERARY NOTES.

—Commencing with the January, 1889, number, the name of the *Sacramento Medical Times* will be changed to the *Occidental Medical Times.* The journal will be enlarged to 56 pages and the subscription will be reduced to $2.00.

—The *Internationales Centralblatt für die Physiologie und Pathologie des Urogenitalsystems* is the title of a new journal about to appear in Germany. Among the members of the editorial staff are Profs. Preyer and Zülzer of Berlin.

—The *Alabama Medical and Surgical Age* began its course in December, 1888, under the editorial management of Dr. John C. Le Grand, at Anniston, Ala. The first number is an octavo of 26 pages, containing a good deal of interesting matter, and an appeal for support in the State of Alabama which deserves a hearty response. The fact that it is the only medical journal now published in a State which has a large and able body of physicians makes its appeal especially worthy of consideration. It is to be issued monthly; subscription price $2.00, payable in advance.

CORRESPONDENCE.

"Grass Bur" in Left Bronchus.

To the Editor.

Sir: I notice in the Reporter of Dec. 8, an account of a case of "Sand-Bur in the Larynx," which recalls to my mind a somewhat similar case occurring in my practice about five years ago, while practising in Texas, and perhaps it is worthy of recording.

I was called to see the patient, a boy four or five years of age, and found him with a high temperature, severe pain in the left side, rapid breathing, with cough and muco-purulent expectoration. On physical examination I found entire absence of respiratory murmur on the left side, and all the symptoms of pneumonia; and such was my diagnosis. I visited him daily and found no improvement in the lung. On about the sixth day, after examining him—and while I was giving some direction in regard to his medicine, he was seized with a violent fit of coughing, and then began to cry, telling his mother that something was sticking him. The mother, using her handkerchief to clear the mucus from the boy's mouth, brought out something and passed it to me. This on inspection proved to be a "grass-bur"—the name applied to a bur, or ball that is covered with very sharp spines or "stickers," the whole thing being perhaps one-fourth of an inch in diameter, and the product of a species of grass indigenous to Texas. The only information I could get to explain how this foreign body found its way into the lung, was from the mother, who recollected that some weeks before the child, while running and playing in the yard, fell down and began to cry as though severely hurt, but soon seemed all right, and nothing more was thought of the occurrence until the bur was expelled from the lung. The patient began to improve from that time and made a complete recovery.

To those who are familiar with the "grass bur," it will seem strange that such a formidable body could enter the bronchi without causing symptoms of a more violent character.

Yours truly,

T. A. Cravens, M.D.

Los Angeles, Cal.,
Dec. 20, 1888.

—The town of Nanticoke, Penna., is alarmed over some cases of small-pox which exist within its limits.

NOTES AND COMMENTS.

Effect of Glycerine on the Quantity of Secretion poured into the Vagina.

At the meeting of the Obstetrical Society of London, Dec. 5, 1888, Dr. Herman read a paper which related observations made to see whether the commonly, but not universally, accepted belief, that the local use of glycerine causes a flow of fluid from the vagina, was correct or not. The observations were made with cotton-wool plugs soaked in glycerine, and with pessaries made of gelatine and glycerine. The amount of glycerine inserted into the vagina was weighed; the discharge from the vagina was weighed, and the amount of vaginal discharge from the same patient when glycerine was not used was also ascertained by weight. The result of the observations was in favor of the following conclusions: 1. That when the secretions poured into the vagina were not abundant, the local use of glycerine increased them. 2. That when the secretions poured into the vagina were already abundant the local use of glycerine did not increase them.

Dr. Champneys asked if Dr. Herman had estimated the loss on the diapers from evaporation. The conditions were favorable for evaporation, and would confirm the conclusions arrived at in the paper.

Dr. Herman, in reply, stated that he thought the loss of weight by the napkins or pads due to evaporation was but slight; on the other hand, the perspiration from the skin with which the napkin was in contact, might cause a slight increase in weight. Dr. Herman had used the words "secretions poured into the vagina," which did not imply any opinion as to their source. Whether the secretion was of uterine or vaginal origin, whether it was produced by glandular activity or simple osmosis, he could not tell. He would be obliged if Dr. Griffith could suggest any method, harmless to the patient, by which the excretions of the uterus could be separated from those of the vagina. Dr. Herman believed that the vagina did secrete mucus. In cases of atresia of the vagina at more than one place, collections of mucous fluid were found between the occlusions. In cases of atresia of the os externum, the vagina was as moist as in most other patients. That under pathological conditions the vagina might pour out fluid in abundance needed no demonstration.—*British Med. Journal*, Dec. 15, 1888.

Electrolysis for Alterations in the Prostate caused by Gonorrhœa.

At the recent meeting of the Southern Surgical and Gynecological Association, held at Birmingham, Ala., Dr. J. D. S. Davis read a paper in which, after establishing the true physiological reason, as he thinks, for the use of electrolysis in hypertrophy of the prostate, based on well-known physiological facts, he gave explicit directions as to the method of its use. He emphasized the great importance of a good galvanometer and rheostat, next to a reliable battery. He recommended the nickel-plated insulated *bougie à boule*. The cutaneous electrode should be large, and applied to the abdomen. In order to obtain the maximum therapeutic effect, the cathode must be introduced into the prostatic urethra, and a very weak current passed through it (to avoid shock, the rheostat should always be used), increasing gradually until the galvanometer registers the required number of milliampères.

The method of *Electrolysis* is simple, and can be executed by the physician without aid; it is painless, requiring no anæsthetic; very little inconvenience is felt after the operation, and anodynes are never required; it is absolutely harmless; it is antiseptic on account of the energy of the low chemical current employed: and electrolysis, which is called galvano-chemical absorption by Newman, is always followed by a process of retrogression and disintegration.

A focus of derivation is created in the diseased gland, which is analogous to what is caused by a profound shock of the muscular system from over-exertion or over-stimulation, and which continues after the cessation of the current; transforming the temporary shock, which the passage of the current has transmitted, to the muscular element of the prostate; and it finally inaugurates a process of retrogression, disintegration, and absorption.

The muscular tissues are relaxed by the powerful stimulating effect of the current; the vessels are relaxed; and the blood-flow is increased by diminishing the capillary resistance; and absorption readily takes place.

Of galvano-chemical absorption, Dr. Davis says: "I understand that it is a chemical decomposition, which borrows its immediate effects from the suppurated albuminous bodies through the constituents of tissue; and not as defined by Newman as 'The process or act of being made passive by the disappearance in some other substance, through molecular or other invisible means, as absorption of light, heat and electricity,' which, though it is Webster's definition of absorption, is only a vague descriptive picture of the disappearance of animal structures."

The author concludes that a favorably-adjusted galvano-chemical current of low intensity will produce a decomposition of the tissues of the body, without resulting in or producing galvano-chemical cauterization of the superficial layers.

Electrolysis, while applicable to all strictures of the urethra, is of permanent benefit in the morbid alteration of the prostate produced by gonorrhœa of the urethra. It has an anæsthetizing influence upon the terminal nerves at the point of application; and by causing muscular exhaustion, it produces early relaxation of spasm, and thus aids in overcoming spasmodic urethral strictures, following the over-stimulation by natural reproductive processes; it excites absorption, and relieves the patient.

Intestinal Obstruction With Linseed.

Dr. Polaillon lately brought to the notice of the Academy of Medicine of Paris a curious effect of linseed, which is frequently prescribed in grain for obstinate constipation. He had under his care a young woman in good health, but habitually constipated, who took daily for three months a tablespoonful of linseed in grain. At the end of this time she showed symptoms of intestinal occlusion, and after complete constipation, lasting for a week, it was found necessary to make an artificial anus, through which an enormous quantity of linseed escaped. Notwithstanding this relief, the patient continued to sink, and died seven days after in a markedly typhoid state. Dr. Polaillon recalled a similar circumstance reported by Professor Verneuil, of obstruction produced by fig-seeds. He thinks that in his own case surgical intervention was too late, and that the woman had succumbed to stercoræmia. Dr. Berger also recalled what takes place in animals which ingest these same products without bruising them, and of which they easily disembarrass themselves. He had seen guinea-pigs fed with Indian corn in grain; their intestines filled like a sack of wheat, and they continued ingesting until the bowel was ruptured. It is probable that these differences between man and animals depend on the nature of the secretions.—*Lancet*, Dec. 15, 1888.

Protection for American Physicians.

Recently actors of the second and third grade have expressed a desire to be protected from the cheaper and perhaps better English article by a non-importation act; for "professional actors" are excluded from the operations of the present law. This actors' movement has struck the average public as absurd, but it is capped by the New York *Medical Record*, which in its issue of December 29 devotes its leading editorial to an earnest plea for protection for American physicians.

It complains that numbers of physicians, so-called, come over from Germany on every steamer. They possess a university diploma of M. D., which entitles them to practice as soon as they get here, though they could not practice in Germany because they have never passed, and are not able to pass, the state examination. Here, however, they have at once the legal status of a physician. They settle down in the German districts, put out a sign and pay visits for twenty-five or fifty cents. England, France and Italy make similar contributions annually to the number of practicing physicians of the United States. On this account, the *Record* says, "there is a growing feeling among physicians in New York City that if the principle of Protection be applied to some class of workers it might with equal justice be applied to the doctor."

It is not disputed that the ranks of physicians in this country are overcrowded. If, however, doctors need to be protected from incompetent Germans they need quite as much to be protected from incompetent Americans, who are turned out of the regular medical colleges by the wholesale and are authorized by their diploma to practice medicine with often an entirely inadequate preparation for their work. One diploma mill, we have in mind, graduates its young men after two terms or a total attendance of six months. Competent doctors may or may not think they require protection from this class of practitioners, but it is certain that the public do. It matters not whether the physician comes from Germany or from Kentucky, the fact that he holds a diploma from some alleged medical college ought not of itself without further proof of fitness to entitle him to practice his probable ignorance upon a suffering and defenseless humanity.

Germany is perfectly right in permitting no one to practice medicine there without passing the state examination. A like provision here would protect the doctors by keeping out thousands of competitors; but its chief recommendation is that it would protect the public in great measure from the quacks and incompetents who, armed with a diploma from some obscure college, now practice unchallenged on whomsoever they can persuade to entrust their health to their keeping.—*Philadelphia Press*, Jan. 3, 1889.

Case of Probable Poisoning with Creolin.

So much has been written lately in praise of creolin as a harmless antiseptic that the following case of probable poisoning with it, which occurred in the wards of Prof. Rosenbach, of Breslau, and is communicated to the *Therapeutische Monatshefte*, merits attention. In a primipara, 27 years old, after evisceration of a dead fœtus the uterus and vagina were washed out with a two per cent. creolin solution, in which procedure about one gallon of the solution was used. As the temperature rose on the next day to 102.4° the uterus was again washed out with one quart of a one per cent. creolin solution. On the following day the temperature was 100.5°, and for this reason and because of a somewhat fetid discharge, the uterus was washed out with about one quart of a one per cent. creolin solution, making the third washing out since the delivery of the woman, without any change in the good health of the patient occurring. In the evening about half-past six the uterus was washed out a fourth time. About nine o'clock the patient became suddenly pale and cold, and vomited violently. The temperature was 99°. The vomiting did not cease, sweating occurred, and at eleven o'clock the patient died in collapse and unconscious, after the temperature had fallen to 96.3°. The brownish-green vomitus smelt of creolin with extraordinary intensity. The distillate treated with bromine water gave a rich precipitate which had the characteristics of tribromphenol. The urine also smelt strongly of creolin.

The result in this case can not be attributed to heart failure, because the patient was pretty well just before death; nor to puerperal sepsis, for the result of the autopsy is opposed to this. Poisoning with creolin is indicated by the similarity of the symptoms to those of carbolic acid poisoning, by the unexpected death in collapse, the negative result of the autopsy, and by the character of the urine and vomitus.—*Wiener med. Presse*, Nov. 11, 1888.

A Threatened Revolt of Medical Students.

The trouble in the Medical Department of the University of the City of New York, to which reference was made in the REPORTER, Dec. 29, is not yet at an end. The students, it may be remembered, objected to the selection of a son of ex-President Woolsey, of Yale College, to be Professor of Anatomy, when they desired a favorite instructor, Dr. Weisse, to receive the appointment. In an address to the students, Jan. 2, Vice Chancellor MacCracken said that Dr. Woolsey had been definitely decided upon as the new Professor, and that Dr. Weisse's resignation had been accepted. Dr. Woolsey gave his first lecture Jan. 3, and the threatened revolt did not come off at that time. A few of the students left the room, but almost all remained, listened to their new lecturer with respect, and applauded him when his lecture was completed.

On Jan. 14, however, 86 dental students presented a paper to the Faculty formally notifying them of their withdrawal from the University. This secession includes all of the dental students in attendance. It is also said that the withdrawal of A. J. Walsh has left the College without anyone who knows the secret way of preserving bodies. The Faculty is therefore obliged to secure fresh bodies for dissection.

Treatment of Acute Coryza.

Dr. F. H. Potter, Lecturer on Laryngology in the Medical Department of Niagara University, makes some timely remarks on the treatment of acute coryza, in the *Buffalo Med. and Surg. Journal*, January, 1889. He considers pernicious the prevalent custom of sleeping with the windows open when the external temperature is below a certain point. At this time the temperature may suddenly fall, or through some restlessness on the part of the sleeper he may expose a part of his body to rapid cooling, and so contract a coryza. A cold bath should be taken in the morning in a warm room. If a bath-room is convenient, the water should be drawn and allowed to stand over night. The bath should be taken rapidly, so that the whole body will glow afterward.

No part of the body should be underclothed or over-clothed. It is important to keep the feet warmly covered, and to remove outside wraps upon going indoors where the atmosphere is warm. The neckscarf should be worn according to the temperature of the day, when its use has become necessary to the wearer. Chronic affections of the nose and throat should be treated, for in patients so afflicted acute attacks of coryza may be only symptomatic of the chronic disorder.

If the cold comes on toward evening, the patient should take a hot bath, then 1-100 to 1-60 of a grain of atropine, and go to bed and be well wrapped up. If the atropine should disagree, a full dose of quinine, about ten grains, may be substituted. During the next day the nose and throat should be thoroughly washed with a warm alkaline spray. But a better plan is to employ the post-nasal syringe for irrigation; contract the turgescence of the nasal tissues with cocaine; and, finally, cover the entire surface with a coating of an unirritating oil. For this purpose he has found *oleum petrolinum* (fluid cosmoline) the best. The applications should be made three times a day. If the cold is first noticed in the morning, the process should be reversed—the local treatment given during the day and the general treatment at night.

By this method of treatment he says that colds which generally last from ten days to two weeks can be limited to about two days. When it fails some chronic intra-nasal disease will usually be found, or else some constitutional disorder which makes the attack of extraordinary obstinacy.

Idiosyncrasy as to Antipyrin.

Dr. F. Brandenberg, of Zug, relates a singular instance of idiosyncrasy as to antipyrin. A man who was suffering from acute articular rheumatism, and could not tolerate salicylate of soda, took fifteen grains of antipyrin in powder. About five minutes later there suddenly appeared violent toothache along the whole lower jaw, then headache, an intense "tearing-asunder" pain in the ear and the parts adjoining, with profuse flow of tears and nasal mucus. The symptoms ceased in the reverse order of their appearance, the toothache lasting for three to four hours. To elucidate the matter, Dr. Brandenberg requested the patient, a very intelligent man, to take another dose. The patient consented, but this time took only seven and one-half grains of the drug. In ten minutes, precisely similar symptoms developed, the toothache lasting for about twelve hours. Curiously enough, the articular pain had disappeared almost completely before the appearance of the other symptoms.—*British Med. Journal*, Dec. 15, 1888.

The Anatomical Tubercle.

Dr. William Osler writes as follows in the *Montreal Med. Journal*, Dec., 1888: There have been of late years several very interesting observations upon the common post-mortem wart, or as it was named by Wilks, who first described it, *verruca necrogenica*. It is now very generally regarded as a local tubercle, the result of inoculation. The presence of bacilli has been demonstrated in several instances. The tubercles consist chiefly of granulation tissue, occasionally with giant cells, and with papillomatous outgrowths of the epidermis, which give the tubercle the wart-like character. They are met with in persons who perform many post-mortems, and in those whose business brings them into close contact with animals and animal products. Their occurrence is by no means infrequent. In Germany it is quite common to see the hands of the demonstrators of pathology (and more especially the attendants in the autopsy rooms) disfigured by these structures.

I have myself eight or ten scars from these warts, which I have had at times on my hands during the past fifteen years. They rarely increase in size beyond a quarter of a dollar piece, are seldom painful, and are only unpleasant on account of the disfigurement. In my case they have lasted variable periods, from four or five weeks to eight or nine months. I have usually found them to disappear spontaneously. Thus, the last one I had was the result of accidental inoculation made from a phthisical subject early in November. I persistently refrained from local treatment in order to watch its development. It gradually spread, and after attaining the size of a ten-cent piece remained quiescent, but did not disappear until June. As is often the case, it had several small colonies in its neighborhood. In the treatment of these structures, I have usually found that the oleate of mercury persistently applied with friction causes rapid disappearance.

In Hutchinson's lectures on Lupus, which appeared in the *British Medical Journal* during the early part of this year, the anatomical tubercle is classed as "lupus necrogenicus," and a very good case is made out in favor of placing it among the lupoid affections. He mentions an interesting instance in which a post-mortem wart has persisted for nearly forty years. Although harmless in the majority of instances, there are cases on record, some of which are quoted by Ruhl and Paltauf in their exhaustive article in vol. xiii of *Vierteljahresschrift für Dermatologie und Syphilis*, in which systemic inoculation has resulted from the local sore. Verneuil suggests, in this connection, that the phthisis with which Laennec suffered might possibly be associated with the wound which he received many years before at a post-mortem on a phthisical subject. No doubt the reason why systemic infection is not more frequently observed is owing to the unfavorable soil which the skin offers for tubercular processes.

Formula for Producing Local Anæsthesia.

Dr. J. M. Lewis, of Mexia, Texas, gives the following formula for injection before extracting teeth, in *Daniel's Texas Med. Journal*, Oct., 1888:

℞ Cocaini muriat. . . . . gr. viii
Chloralis hydrat. . . . . gr. v
Acidi carbol. . . . . gtt. iii
Aquæ destil. . . . . f ʒ iii
M. Sig. Inject two or three drops into the gum.

Swallowing Sovereigns.

Dr. Siotis reports the case of a patient who had swallowed fifteen sovereigns. He complained of severe pain in the epigastric region. Auscultation revealed the distinct clinking sound of the coins when the patient moved. Purgatives were useless. Pills of opium and belladonna were then administered. The next day three gold pieces were found in the fæces, and a painful cylindrical tumor was detected in the rectum. On the following day four other pieces were expelled, and severe pain was felt in the right iliac fossa. When percussed, this region gave a metallic sound. The remaining gold pieces were shortly afterward expelled, and the patient completely recovered.—*British Med. Journal*, Dec. 22, 1888.

Association of Acting Assistant Surgeons, U. S. Army.

The Annual Meeting of the Association of Acting Assistant Surgeons of the U. S. Army, an announcement of which was published in the REPORTER Nov. 24, will be held in Newport, R. I., Monday, June 24, 1889, at 8 P. M. Members of the Association are cordially invited to read or present papers concerning the history and the welfare of the corps.

Members who intend to be present are requested to notify the Recorder, W. Thornton Parker, M.D., Newport, R. I., at the earliest possible date.

NEWS.

—Dr. Amos Walker, formerly of Philadelphia, died at Doylestown, Pa., January 10, 1889, in the 95th year of his age.

—Several families in Albany, New York, are reported to have been poisoned by eating cheese and pickles. No deaths have occurred.

—Lieutenant Miles, of the United States Steamer Yantic, which recently arrived in New York from Hayti, died of yellow fever January 14.

—Dr. B. F. Kane, Professor of Clinical Medicine and Pathology, Medical Department of the University of California, died Dec. 29, 1888.

—The eleventh public congress of the section in Balneology of the German *Gesellschaft für Heilkunde*, will be held in Berlin in March, 1889.

—Prof. Liebreich announces in the November number of the *Therapeutische Monatshefte* that he has succeeded in producing cocaine by synthesis.

—Dr. Thomas Goodwillie, of Vernon, Vt., died of pneumonia Dec. 22, 1888. He was graduated from the Medical Department of Dartmouth College in 1866.

—Dr. George A. Bodamer has resigned his position as Resident Physician in Chief of the German Hospital, and intends to go abroad for purposes of study and recreation.

—Dr. Nathan Allen, of Lowell, Mass., died Jan. 1, 1889, at the age of 76. He was graduated from Amherst College in 1836, and from the Pennsylvania Medical College in 1841.

—The President of the Board of Health and the Health Officer, of Jacksonville, Florida, have issued bulletins declaring the city of Jacksonville and the county of Duval free from yellow fever and perfectly safe to visit.

—A cable dispatch to the daily papers states that the Royal College of Surgeons of England has passed a vote of censure on Sir Morell Mackenzie for publishing his book on the case of the late Emperor Frederick. The vote was twenty-one to two.

—The number of deaths in Philadelphia last week numbered 360, a decrease of 29 as compared with the same period last year. As usual the number of deaths from diseases of the lungs and bronchi largely predominated, numbering 121 in all. There were 9 deaths from scarlet fever, and 10 from typhoid fever.

—The *New York Med. Journal*, Jan. 12, in its statement of the infectious diseases in New York, gives the following figures for the two weeks ending Jan. 8: Typhoid fever, 29 cases and 11 deaths; scarlet fever, 544 cases and 87 deaths; measles, 809 cases and 35 deaths; diphtheria, 296 cases and 93 deaths.

HUMOR.

A CALL TO ARMS—a wail from a baby at 2 A. M.—*Burlington Free Press.*

EMPEROR WILLIAM has instructed the army physicians not to be afraid of making their treatment Teutonic. — *Pittsburgh Chronicle.*

SURE CURE.—Family Doctor—"Your wife needs outdoor exercise more than anything else." Husband—"But she won't go out. What am I to do?" "Give her plenty of money to shop with."—*New York Weekly.*

MRS. VENEERING—"Really, my dear doctor, you must come to my ball. It is Lucy's coming-out affair, you know, and I shall take no refusal; none at all." Doctor Bygfee—"Well, you see, my dear madam, I am a very busy man. My time is not my own—" Mrs. Veneering—"Say no more. Include the visit in your bill. There, I shall expect you. Good-bye."—*Pittsburg Bulletin.*

SMALL PRACTICE.—Young Doctor—"Yes, I expect that it will go pretty slow when I first open an office until I get started a little." Old Doctor—"Well, you bet it will. Why, when I first hung out my shingle I sat in my office for three months and only had one case." "Whew! That *was* pretty tough, wasn't it? Only *one* case! and what was that a case of?" "A case of instruments."—*Puck.*

OBITUARY.

JOHN J. SINNICKSON, M.D.

Dr. John J. Sinnickson died recently in Salem, N. J. His family is one of the original Swedish families which came to this country in 1638. Dr. Sinnickson was graduated from the University of Pennsylvania, and served in the war with Mexico. He was wounded in battle and remained disabled from his injuries to the end of his life. He was engaged largely in mercantile pursuits.